Martin Kohlrausch / Katrin Steffen
Stefan Wiederkehr (eds)

Expert Cultures in Central Eastern Europe

The Internationalization of Knowledge and the Transformation of Nation States since World War I

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Expert Cultures in Central Eastern Europe

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Cover picture:

Ignacy Mościcki, President of the Second Polish Republic (1926–1939), visits the Ursus Works in Czechowice accompanied by Chief of the Military Cabinet Colonel Sergiusz Zahorski (ca. 1928)

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MARTIN KOHLRAUSCH / KATRIN STEFFEN / STEFAN WIEDERKEHR

EXPERT CULTURES IN CENTRAL EASTERN EUROPE

THE INTERNATIONALIZATION OF KNOWLEDGE AND THE TRANSFORMATION OF NATION STATES SINCE WORLD WAR I – INTRODUCTION*

With good reason, the twentieth century can be described as the century of the expert. With the breakthrough of science and technology, those who commanded the latest knowledge gained in importance and societal standing. After all, the knowledge of experts was part and parcel of the secular process that has been described as the ascent of territoriality.[1] This process was strongly connected – though, of course, not limited – to state activity in ever more areas of life, which created ever more fields of activity for specially trained experts and in many ways created completely new fields of knowledge and expertise.[2] However, often for the same reasons that brought them into new bargaining positions in the first place, experts were controlled, forced or persecuted in the long twentieth century. The great caesurae of this century, in particular the two world wars, reconfigured established fields of expertise while at the same time opening up completely new opportunities for experts.

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* The contributions to this volume were presented at the European Science Foundation Exploratory Workshop on 'The International Community of Experts and the Transformation of the Fatherland. Central Eastern Europe in the European Context since WWI' held at the German Historical Institute Warsaw on 11-13 September 2008. We thank the European Science Foundation and the German Historical Institute for their funding and support.

[1] Die Ordnung der Moderne. Social engineering im 20. Jahr-hundert, ed. by THOMAS ETZEMÜLLER, Bielefeld 2009; LUTZ RAPHAEL, Die Verwissenschaftlichung des Sozialen als methodische und konzeptionelle Herausforderung für eine Sozialgeschichte des 20. Jahrhunderts, in: Geschichte und Gesellschaft 22 (1996), p. 165-193; CHARLES S. MAIER, Consigning the Twentieth Century to History. Alternative Narratives for the Modern Era, in: American Historcial Review 105 (2000), p. 807-831.

[2] JAMES C. SCOTT, Seeing like a state. How certain schemes to improve the human condition have failed, New Haven 1998.

This volume conceives the expert not as a new phenomenon, but as a specific type that came to evolve in the late nineteenth century and previously only existed in a much smaller number of professional fields.[3] In the course of the growing scientification of the economy, society and increasingly also politics since the end of the nineteenth century, the bearers – or at least the harbingers – of new knowledge immensely gained in significance. This was not least due to the fact that under increasingly complex conditions, policymakers and other responsible persons wanted to back up their decisions with qualified expert opinions.

By experts we mean professionally qualified individuals who were recognized as such by their peers and/or by a wider public (see the contribution by Eva Horn in this volume). For this reason, i.e. the strong interdependence between experts and their environments, we refer to 'expert cultures' in the title. The status of the expert is not necessarily fixed; rather, it is highly dependent on the currently dominant economic, social and political circumstances.[4] Moreover, it is always a result of cultural ascriptions and communicative negotiations. This means that in examining experts, the methodological possibilities of a historical research enhanced by cultural considerations are particularly rewarding. While this complex interrelation offers heuristic chances, it also means that to a certain degree we have to accept the ambiguity of the term 'expert'.

The rise of the expert was, and still is, an international phenomenon. Internationality often even serves as evidence of the expert status. The attainment of the status and the activities of experts were also, however, always to a large degree dependent on and linked to their respective nation states. It is the fate of the expert to operate somewhere inbetween a universalist understanding of his or her expertise in science and/or technology and the politically or culturally defined requirements of the state or nation.

Using case studies of particularly telling examples, this volume first of all strives to reconsider the history of experts in two respects: It examines the relationship between state, experts and nation, and in doing so tries to reconsider the historical and political caesurae that shaped Europe in the nineteenth and particularly the twentieth century. Second, it will take into consideration a part of the European continent that has so far often not been

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[3] For a long-term perspective on expertise, see JAKOB VOGEL, Ein schillerndes Kristall. Eine Wissensgeschichte des Salzes zwischen Früher Neuzeit und Moderne, Köln 2008; Figurationen des Experten. Ambivalenzen der wissenschaftlichen Expertise im ausgehenden 18. und frühen 19. Jahrhundert, ed. by ERIC J. ENGSTROM et al., Frankfurt am Main 2005.

[4] H. M. COLLINS, ROBERT EVANS, Rethinking expertise, Bristol 2007; GABRIELE GOETTLE, Experten, Frankfurt am Main 2004; STAN J. KNAPP, Analyzing Narratives of Expertise. Toward the Development of a Burkeian Pentadic Scheme, in: The Sociological Quarterly 40/4 (1999), p. 587-612.

sufficiently considered in the dominant master narratives. This focus is not primarily intended to 'complete the picture', but rather to show that Central and Eastern Europe in many ways offer highly relevant insights for our understanding of the interconnections between state, nation and experts.[5]

Despite the rupture brought about by World War I and the consequent interruption of exchange between experts and scientists,[6] the ensuing nationalization of communication spaces and the expulsion of experts from the defeated states from professional associations, one can observe a remarkable increase in professional communication during the interwar period. In older as well as newly created organizations – for example the League of Nations – new fora were established that were driven by the desire to keep up with the ever accelerating pace of technological development.[7] In this context, we can discern a tense relationship between the nation states and 'their' experts, whose knowledge was on the one hand generated and proliferated through transnational exchange, but on the other supposed to serve the progressivist strivings of the national society.

These questions are highly relevant with regard to the newly formed states of Central Eastern Europe, which in the process of forming and reorganizing their administrations and institutions desperately needed expert knowledge and invested significant resources into the training of new functional elites after World War I. After the breakdown of the dynastic empires, the formation of new states coincided with a phase of rapid change and high social mobility.[8] Especially the exchange of functional

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[5] So far there are only few studies on the topic with a focus on Central Eastern Europe: Elitenwanderung und Wissenstransfer im 19. und 20. Jahrhundert, ed. by DITTMAR DAHLMANN/ REINHOLD REITH, Essen 2008; Professionen im modernen Osteuropa, ed. by CHARLES MCCLELLAND/ STEPHAN MERL/ HANNES SIEGRIST, Berlin 1995; with a broader focus: Technological Innovation and Transnational Networks. Europe between the Wars, ed. by MARTIN KOHLRAUSCH/ DIETRICH BEYRAU, Special Issue of Journal of Modern European History 6/2 (2008); PIERRE-YVES SAUNIER, Sketches from the Urban Internationale, 1910–50. Voluntary Associations, International Institutions and US Philanthropic Foundations, in: International Journal of Urban and Regional Research 25/2 (2001), p. 380-403.

[6] For examples from the milieu of European universities, see TRUDE MAURER, Kollegen – Kommilitonen – Kämpfer. Europäische Universitäten im Ersten Weltkrieg, Stuttgart 2006.

[7] PATRICIA CLAVIN/ JENS-WILHELM WESSELS, Transnationalism and the League of Nations. Understanding the Work of Its Economic and Financial Organisation, in: Contemporary European History 14 (1995), p. 465-492.

[8] For the 1920s we can observe a knowledge transfer from east to west quite different to the one during the Cold War. As a result of the Bolshevik Revolution and the Civil War, several thousand 'Whites' escaped from Russia to Western Europe, but also to Czechoslovakia, Yugoslavia and Bulgaria. Among these refugees was a significant number of scientists, specialists and experts these countries wanted to profit from. The so-called Russian Assistance Action (*Ruská pomocná akce*) organized by the Czechoslovak government was the

elites after 1918 deserves attention in this context (see the contribution by Ingo Loose).

Quite differently, but at second glance in many ways that paralleled and built on post-World War I developments, after 1945 Central Eastern Europe again witnessed a massive elite exchange, this time even more politically connoted and dominated by direct state intervention. In light of the knowledge transfer within the 'Eastern bloc', but also between the two blocs, which we assume never ceased entirely, it is important to also include the period after World War II in our temporal focus.

The term 'Central Eastern Europe' in this context refers to a historical European region that was always open towards its neighbouring regions.[9] Its core lies between the cities Prague, Krakow, Lvov and Budapest. It is a region that – depending on the historical epoch under investigation – expands or contracts in the eye of the cultural, historical or sociological observer. For the twentieth century, the following structural characteristics are particularly relevant for this region:

1. The empires imposed homogenizing structures up to World War I, which entailed a more or less 'forced' internationalization. This phenomenon repeated itself under completely new auspices, but in some respects in a similar form, after World War II as a consequence of the Sovietization of the region.
2. Between these two chapters, during the interwar years, a phase of new state foundations set in during which states attempted to consolidate as *nation* states despite significant minority populations.
3. More or less the entire region was extremely exposed to the devastations and genocidal politics of Nazi Germany between 1939 and 1945. Timothy Snyder has recently alerted us to the somewhat forgotten fact that the mass killings of the Germans – but also the Soviets – in the

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most important programme to attract Russian refugees with the promise of generous help and at the same time to instrumentalize their knowledge for Czechoslovak nation building. See ELENA V. CHINYAEVA, Russians outside Russia. The Émigré Community in Czechoslovakia 1918-1938, München 2001.

[9] Under Eastern eyes. A comparative introduction to East European travel writing on Europe, ed. by WENDY BRACEWELL, Budapest 2008; JOACHIM VON PUTTKAMER, Ostmitteleuropa im 19. und 20. Jahrhundert, München 2010; JOACHIM BAHLCKE, Ostmitteleuropa, in: Studienhandbuch Östliches Europa, vol. 1, Geschichte Ostmittel- und Südosteuropas, ed. by HARALD ROTH, 2nd revised edition, Köln 2009, p. 59-72. For an overview over alternative terminologies such as 'East Central Europe' for the region under focus, see RUDOLF JAWORSKI, Zentraleuropa – Mitteleuropa – Ostmitteleuropa. Zur Definitionsproblematik einer Großregion, in: newsletter Moderne 2 (1999) p. 2-4; Forum 'Zur Europäizität des östlichen Europa', ed. by STEFAN TROEBST, in: H-Soz-U-Kult, 29 May-7 June 2006, http://hsozkult.geschichte.huberlin.de/index.asp?id=744&pn=texte, accessed 29 April 2010.

1930s and 1940s to a large degree took place in the Eastern parts of Europe between Germany and Russia: in Belarus, Ukraine, Poland and the Baltic states.[10]

4. The specific social stratification and economic outlook with a dominant landed nobility played an important role. This nobility, however, was partly able to modernize itself and also to contribute to the modernization and industrialization of the region in the nineteenth and early twentieth century. In this process, the Central Eastern European nobility did not simply replace a non-existing or weakly developed middle class, a 'lack' when compared to the Western benchmark in interpretations informed by the modernization theory that hardly ever focuses on other elite formations. Rather, the region's specific and diversified elites of noble and 'bourgeois' provenance came together to negotiate their interests in a way that spawned compromises between the older elites and the newly formed and upcoming ones.[11]

Thus, we explicitly do not want to take up the old trope of an alleged backwardness of Eastern Europe, which is prevalent in so much of the older literature on the region.[12] Shmuel Eisenstadt's concept of 'multiple modernities' is a much more fruitful approach in this respect.[13] However, it is also important not to embark on a radically cultural relativist course. Rather, we must trace individual models of modernization in Central Eastern Europe. By pointing out the region's specific modernization experiences – with all their references to current transformation processes – the still dominant conception that the eastern part of the continent is merely 'catching up' to Western levels of development can effectively be disproved. Especially the region's communication ties to its western as well as eastern neighbouring regions illustrate its significance in a broader European context.

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[10] TIMOTHY SNYDER, Holocaust. The ignored reality, http://www.eurozine.com/articles/2009-06-25-snyder-en.html, accessed 25 April 2010 (first published in the New York Review of Books, 16 July 2009).

[11] KARSTEN HOLSTE/ DIETLIND HÜCHTKER/ MICHAEL G. MÜLLER, Aufsteigen und Obenbleiben in europäischen Gesellschaften des 19. Jahrhunderts. Akteure – Arenen – Aushandlungsprozesse, in: Aufsteigen und Obenbleiben in europäischen Gesellschaften des 19. Jahrhunderts. Akteure – Arenen – Aushandlungsprozesse, ed. by KARSTEN HOLSTE/ DIETLIND HÜCHTKER/ MICHAEL G. MÜLLER, Berlin 2009, p. 9-19, p. 12-14.

[12] MANFRED HILDERMEIER, Das Privileg der Rückständigkeit. Anmerkungen zum Wandel einer Interpretationsfigur der neueren russischen Geschichte, in: Historische Zeitschrift 244 (1987), p. 557-603.

[13] SHMUEL N. EISENSTADT, Multiple Modernities, in: Daedalus 129 (2000), p. 1-29.

In this sense the essays in this volume also contribute to reconsidering European integration – understood in the wider sense of the word.[14] Moreover, in choosing a long-term perspective that bridges the established political caesurae of wars and system changes, this volume wants to contribute to current attempts to establish a chronological narration more adequate to the phenomena in question.[15] Obviously, when considering a region that stretches from the Elbe River to the Ural Mountains and covering some eighty years, many aspects have to be left out. This is particularly true for the transformations that shaped the region from 1989 on, which will not be addressed at all. Diverse as the approaches are, there is a set of common questions guiding all of the case studies in this volume. Three perspectives are briefly sketched below.

1. Technocratic Thinking and Technological Expertise

The popularity of technocratic solutions was one of the few common features of European politics in the interwar period.[16] This trend went far beyond the U.S.A., but was strongly indebted to them. The transfer of technocratic notions was both intellectual and very practical, carried out through the intense traffic of expert groups studying preferably U.S.-examples (see the contribution by Valentina Fava). Technocratic thinking thus almost necessarily carried connotations of Americanism.[17] It appears that

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[14] THOMAS J. MISA/ JOHAN SCHOT, Inventing Europe. Technology and the Hidden Integration of Europe, in: History and Technology 21/1 (2005), p. 1-20.

[15] MARGIT SZÖLLÖSI-JANZE, Wissensgesellschaft. Ein neues Konzept zur Erschließung der deutsch-deutschen Zeitgeschichte, in: Koordinaten deutscher Geschichte in der Epoche des Ost-West-Konflikts, ed. by HANS GÜNTER HOCKERTS, München 2004, p. 276-305; JAKOB VOGEL, Von der Wissenschafts- zur Wissensgeschichte. Für eine Historisierung der 'Wissensgesellschaft', in: Geschichte und Gesellschaft 30 (2004), p. 639-660.

[16] CHARLES S. MAIER, Between Taylorism and Technocracy. European Ideologies and the Vision of Industrial Productivity in the 1920's, in: Journal of Contemporary History 5 (1970), p. 27-61. For the case of Germany, see STEFAN WILLEKE, Die Technokratiebewegung in Deutschland zwischen den Weltkriegen. Eine vergleichende Analyse, Frankfurt am Main 1995; for the Soviet Union, see KENDALL E. BAILES, The American Connection. Ideology and the Transfer of American Technology to the Soviet Union, 1917-1941, in: Comparative Studies in Society and History 23 (1981), p. 421-448; MELANIE TATUR, 'Wissenschaftliche Arbeitsorganisation'. Zur Rezeption des Taylorismus in der Sowjetunion, in: Jahrbücher für Geschichte Osteuropas 25/1 (1977), p. 34-51; MELANIE TATUR, 'Wissenschaftliche Arbeitsorganisation'. Arbeitswissenschaften und Arbeitsorganisation in der Sowjetunion 1921-1935, Wiesbaden 1979.

[17] DANIEL T. RODGERS, Atlantic crossings. Social politics in a progressive age. Cambridge, MA 1998, p. 371-372.

the term's success – and 'transferability' – was not least due to the fact that it was both abstract and blurred, as well as strongly connected to the somewhat narrower – and equally successful – concepts of rationalization, Taylorism and Fordism.[18]

The well-studied advance of technocratic concepts had a number of reasons. Such concepts promised to merge the immense scientific and economic progress with politics, thus also modernizing the state and reconfiguring the relationship between state and society. In an ideal form, a technocracy would emerge freed as much of all ideology as of economic and bureaucratic inefficiencies. However, utopian as such visions remained throughout, they cannot be confined to mere ideas. Particularly in the wake of Europe's political and economic crisis after World War I,[19] a technocratic transformation of state and economy promised an alternative model to the rising tides of Fascism and Communism while leaving the basic social order intact. Therefore, the *nébuleuse réformatrice* grew stronger and spread almost entirely across Western Europe. As Kenneth Bertrams stresses, referring to earlier findings of Charles S. Maier, technocratic models favoured a corporatist organization of politics with different forms of bargaining power. In any case, this corporatism meant the 'twilight of sovereignty', generally involving a weakened parliament and access to executive power for a new class of experts.

As Bertrams shows, there was not *the* one Western model. Indeed, there is good reason to assume that the success of technocratic concepts not only included the countries of Central Eastern Europe, but was particularly pronounced in the region after 1918, for specific reasons and with unique outcomes. Moreover, though popular in parliamentarian democracies, different currents of technocratic thinking were also an integral part of dictatorial and totalitarian systems.[20] With regard to the region in question, at least three aspects should be mentioned:

1. The potential win-win-situation of the state profiting from scientific and technical expertise and technical experts being raised in their status and gaining new positions of influence in 'expert-based system[s]' (Bertrams) was even more explicit than in many countries in Western Europe or elsewhere. The examples presented in the contributions by Stefan Rohdewald

[18] MARY NOLAN, Visions of Modernity. American Business and the Modernization of Germany, New York 1994; RUSS BANHAM, The Ford century. Ford Motor Company and the innovations that shaped the world, New York 2002; Zukunft aus Amerika. Fordismus in der Zwischenkriegszeit, ed. by REGINA BITTNER, Dessau 1995.

[19] GUNTHER MAI, Politische Krise und Rationalisierungsdiskurs in den zwanziger Jahren, in: Technikgeschichte 62 (1995) p. 317-332.

[20] WOLFGANG SCHIVELBUSCH, Three New Deals, New York 2006.

and Elisabeth van Meer provide ample evidence for the strong need of the often newly established and almost always contested states of the region to prove their legitimacy and to successfully establish and maintain their new institutions by drawing heavily on technical expertise (see also Loose). This, on the other hand, opened up immense opportunities for the rising class of engineers and related technical experts who, due to geography or more often their national backgrounds, had been in second-rate positions in the empires that dominated the region before 1918.[21] It was on these technical experts to stage the 'great leap forward' which particularly regions dominated by agriculture and weakly developed industry dreamed of. In addition, these experts profited from the significant symbolic relevance technology and science attained for the states in question.[22] This also implied the reconfiguration of professional identities, with the engineer assuming a key role.[23]

2. It was also for this reason that in a number of areas the link between nation and expertise was more pronounced than – generally speaking – in Western Europe. Nationalizing states such as Czechoslovakia or Poland bore the burden of heavy political cleavages and conflicts with national minorities, which were primarily conceptualized as problematic – if not as outright threats – regardless of whether they actually engaged in subversive activities against the so-called 'core nation', defined in ethno-cultural terms,[24] or not. It thus seemed particularly advisable for these countries to embark on the allegedly neutral vision of a state organized along technocratic lines. The best-known example is the *Sanacja* (sanitation, healing, national cleansing) regime established in Poland in 1926, which already in its name alluded to the notion of a cure for politics and society through

[21] On the nationalities and minority politics in the multinational Empires before World War I, see GERALD STOURZH, Die Gleichberechtigung der Nationalitäten in der Verfassung und Verwaltung Österreichs 1848–1918, Wien 1985; Nationale Minderheiten und staatliche Minderheitenpolitik in Deutschland im 19. Jahrhundert, ed. by HANS HENNING HAHN/ PETER KUNZE, Berlin 1999; ANDREAS KAPPELER, Rußland als Vielvölkerreich. Entstehung – Geschichte – Zerfall, München 2001; ALEXEI MILLER, The Romanov empire and nationalism. Essays in the methodology of historical research, Budapest 2008.

[22] For the symbolic role of technology, see BERNHARD RIEGER, Technology and the Culture of Modernity in Britain and Germany. 1890–1945, Cambridge 2005; also Technische Intelligenz und 'Kulturfaktor Technik'. Kulturvorstellungen von Technikern und Ingenieuren zwischen Kaiserreich und früher Bundesrepublik Deutschland, ed. by BURKHARD DIETZ, MICHAEL FESSNER, HELMUT MAIER, Münster 1996.

[23] The Quest for a Professional Identity. Engineers between Training and Action, ed. by MARIA PAULA DIOGO et al., Lisboa 2009.

[24] See ROGERS BRUBAKER, Accidental Diasporas and external 'Homelands' in Central and Eastern Europe. Past and Present, in: Transnationalism. Diasporas and the advent of a new (dis)order, ed. by ELIEZER BEN-RAFAEL, Leiden 2009, p. 461-482.

'reasonable' reform inspired by technocratic models.[25] *Sanacja* meant, amongst other things, a healthy cleansing and professionalization of the state apparatus and its infusion with technocratic-managerial ideas. Not least of all, the appointment of the chemist Ignacy Mościcki as president of Poland symbolized this. One of the biggest economic projects the *Sanacja* regime embarked on was the attempt to build the so-called Central Industrial Region (COP), initiated by the Polish chemist, economist, Deputy Prime Minister, Minister of the Treasury and builder of the port of Gdynia, Eugeniusz Kwiatkowski. Its goal was to create a heavy industry centre in the middle of the country, as far away as possible from any borders, to strengthen the Polish economy and to reduce unemployment. Its implementation was accompanied by strong national rhetoric.[26] Polish concepts of combining science, government and new means of communication were closely related to the earlier American and Czech examples. The transfer of knowledge therefore functioned by adjusting foreign concepts to the local conditions of the Second Republic of Poland. Rohdewald shows how the influential Polish technocratic thinker Tadeusz Dzieduszycki, who at least for a certain time was close to the regime, heavily drew on the specific Polish situation of having been 'colonized', and after 1918 aspiring to become a colonizing nation – or at least a significant player in the concert of powers – itself. Here, the transfer of technology figured as an ideological project to achieve hegemony in the region through the re-export of imported technology and management methods. Technocratic models were widely seen as the tool to achieve this ambitious goal. Although developed in close exchange with experts from abroad at international conferences, such models could thus become heavily nationalized. This was not only true for Poland, but also, and particularly, for the 'Czechoslovak model' of incorporating Taylorism and Fordism. Czechoslovakia was a forerunner of technocratic thinking in the region, if not in Europe (see Rohdewald and van Meer). In her contribution, van Meer stresses the anti-German impetus of the development of a 'Czech' technology and science. The professionalization of technical experts and the development of a national consciousness thus went hand in hand already in the nineteenth century.

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[25] JOSEPH ROTHSCHILD, East Central Europe between the Two World Wars, Washington, D.C. 1974, p. 58.

[26] See for example DIONIZY GARBACZ, Eugeniusz Kwiatkowski w Stalowej Woli, 2nd edition, Stalowa Wola 2002; Centralny Okręg Przemysłowy. Infrastruktura – produkcja – procesy miastotwórcze, ed. by SEBASTIAN PIĄTKOWSKI, Radom 2005; see also MELCHIOR WAŃKOWICZ, Sztafeta, Warszawa 1939, and MELCHIOR WAŃKOWICZ, C. O. P. Ognisko siły. Centralny Okręg Przemysłowy, Warszawa 1938.

3. After 1918, 'scientific management' was seen as a strategy to develop the whole region of Central and Eastern Europe and to give the new state Czechoslovakia both a modern identity (the 'Yankee of Europe') and legitimacy (see Fava). The combination of technocratic and national rhetoric proved extremely effective to convince decision makers. Whereas the loyalty of Italian Fiat experts – whom Fava compares with Škoda experts – was to their company, Czechoslovak engineers regarded Americanization and 'Scientific Management' as a means of nation building.

The – at first glance – obvious connection between scientific and economic experts and the state was, however, not an easy one. Much more so than – generally – in Western Europe or the United States, loyalty became a crucial and highly contested issue in the complicated shift from empire to independent states, which more often than not did not coincide with nations in the stricter sense of the word. While the empires, though far from being tolerant entities, defined their demands for loyalty rather negatively and passively (the more or less pronounced oppression of emancipatory movements), the new states demanded a more positive and active commitment. New chances for experts were thus often thwarted by the immense pressure exerted by the state, and sometimes also by society (see the contribution by Dagmara Jajeśniak-Quast).[27]

After the establishment of socialist regimes and planned economies in most of Central and Eastern Europe – Fava shows this for Czechoslovakia – the link between technological progress and national ambitions no longer worked the way it had before the war. The Czechoslovak engineers, who still travelled to the United States in the late 1940s, were well aware of the lack of flexibility at home which would no longer allow the transfer of adapted models. Fordist and Taylorist models now entered Czechoslovakia – like the other countries in the region – in their Soviet current. Moreover, they were also caught in the paradoxical effect that haunted the Soviet Union already before World War II: The Eastern bloc tried to build an economic system distinct from the West, but implicitly accepted Western economic modernism as the benchmark to compete with.[28]

While in an abstract sense technocratic models fell on an almost ideal ground in the Soviet system, which itself claimed to be based on scientific

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[27] KATRIN STEFFEN/ MARTIN KOHLRAUSCH, The Limits and Merits of Internationalism. Experts, the State and the International Community in Poland in the First Half of the Twentieth Century, in: European Review of History 16/5 (2009), p. 715-737.

[28] GYÖRGI PÉTERI, Nylon Curtain. Transnational and Transsystemic Tendencies in the Cultural Life of State-Socialist Russia and East-Central Europe, in: Slavonica 10 (2004), p. 113-123, p. 114; DAVID CROWLEY, Paris or Moscow? Warsaw Architects and the Image of the Modern City in the 1950s, in: Kritika 9/4 (2009), p. 769-797.

principles and attributed leading roles to engineers, the Soviet Union also provides an extreme example of technical experts being forced into a corset of ideological assumptions.[29] Under these conditions the technocratic framework, which at least as a mode of communication proved so effective in the interwar period, did not work any more. But the clout of technocratic models also points to the darker side of the relationship between experts and the state. As Bertrams shows, even for a democracy like Belgium councils of experts managed to exempt themselves of democratic control with surprising ease. It thus fits into the picture that technocratic models played an immensely important role not only in the Soviet Union, but also in Nazi Germany and Fascist Italy.[30]

2. Expert Networks between National Loyalty and Internationalism

The combination of technocratic and national rhetoric functioned within the framework of a scientifically driven promise of technological progress. This combination proved to be extremely effective to convince decision makers, which can easily be traced e.g. for Poland. The above-mentioned development of the COP is one example of a rule of economic technocrats who underscored their efforts in favour of heavy financial investments into large state-subsidized infrastructure and economic projects with national and also military-strategic arguments. Clearly, such examples have to be seen in the context of the extreme popularity of the notion of planning in the 1920s not only in Europe, but also in the United States. In particular the experience of World War I, many contemporaries thought, had demonstrated both the success of planning and the need for even broader and more efficient planning.[31]

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[29] DOLORES L. AUGUSTINE, Red Prometheus. Engineering and dictatorship in East Germany, 1945–1990, Cambridge, MA 2007; KLAUS GESTWA, Technik als Kultur der Zukunft. Der Kult um die 'Stalinistischen Großbauten des Kommunismus', in: Geschichte und Gesellschaft 30 (2004), p. 37-73; SUSANNE SCHATTENBERG, Stalinismus in den Köpfen. Ingenieure konstruieren ihre Welt, in: Geschichte und Gesellschaft 30 (2004), p. 94-117; MARK R. BEISSINGER, Scientific management, socialist discipline and Soviet power, Cambridge, MA 1988.

[30] THOMAS ROHKRÄMER, Die Vision einer deutschen Technik. Ingenieure und das 'Dritte Reich', in: Utopie und politische Herrschaft im Europa der Zwischenkriegszeit, ed. by WOLFGANG HARDTWIG, München 2003, p. 286-325.

[31] Wissenschaft – Planung – Vertreibung. Neuordnungskonzepte und Umsiedlungspolitik im 20. Jahrhundert, ed. by ISABEL HEINEMANN/ PATRICK WAGNER Stuttgart 2006; DIRK VAN LAAK, Zwischen 'organisch' und 'organisatorisch'. 'Planung' als politische

Since industrial and economic development was often regarded as a key element in the success of the project 'nation state', these states had high expectations of the academic institutions and experts they funded. Expertise was therefore not first and foremost a technical question, but a political one, including its symbolic dimension as well as its representations. Expertise as common knowledge thereby was and is generated in the framework of the relationship between science and power, with its own claims of validity and forms of representation.[32] For the period covered in this volume, expertise and knowledge had become central to questions of national security, economic development and also identity formation. Knowledge had always mattered tremendously to states and economic elites, and the control of expertise remains a central political goal of nation states. It became one of the duties of all states or state federations, and this holds true also for the rapidly developing states of Central Eastern Europe after 1918. Since knowledge often masquerades as neutral fact, pretending to be 'true', independent knowledge has never been very common.[33]

Knowledge is thus, of course, always socially constructed, and so, one might add, is expertise. Already in 1935 the Polish-Jewish physician and bacteriologist Ludwik Fleck had stressed this in his by now widely acknowledged book, *The Genesis and Development of a Scientific Fact*, which he – perhaps not incidentally – developed in a region also addressed in this volume: the allegedly peripheral European city of Lvov.[34]

The intimate connection between the expert, the state and society also remained intact in the post-World War II period. This nationalization

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Leitkategorie zwischen Weimar und Bonn, in: Griff nach dem Westen, Die 'Westforschung' der völkisch-nationalen Wissenschaften zum nordwesteuropäischen Raum (1919-1960), ed. by BURKHARD DIETZ/ HELMUT GABEL/ ULRICH TIEDAU, Münster 2003, p. 67-90; DIRK VAN LAAK/ GABRIELE METZLER, Die Konkretion der Utopie. Historische Quellen der Planungsutopien der 1920er Jahre, in: Wissenschaft – Planung – Vertreibung, p. 23-43.

[32] CARSTEN REINHARDT, Historische Wissenschaftsforschung heute. Überlegungen zu einer Geschichte der Wissensgesellschaft, in: Berichte zur Wissenschaftsgeschichte 33 (2010), p. 81-99, p. 84.

[33] DOMINIQUE PESTRE, Regimes of Knowledge Production in Society. Towards a More Political and Social Reading, in: Minerva 41 (2003), p. 245-261; see also STEPHEN TURNER, What is the Problem with Experts? in: Social Studies of Science 31/1 (2001), p. 123-149, p. 127, and H. M. COLLINS, ROBERT EVANS, The Third Wave of Science Studies. Studies of Expertise and Experience, in: Social Studies of Science 32/2 (2002), p. 235-296; also REINHARDT, Historische Wissenschaftsforschung, p. 84.

[34] See ILANA LÖWY, Medical acts and medical facts. The Polish tradition of practice-grounded reflections on medicine and science from Tytus Chalubiński to Ludwik Fleck, Krakow 2000; Cognition and fact. Materials on Ludwig Fleck, ed. by ROBERT S. COHEN/ THOMAS SCHNELLE, Dordrecht 1986; Penser avec Fleck. Investigating a Life Studying Life Sciences, ed. by JOHANNES FEHR, Zurich 2009.

process was perhaps at its height during the Cold War both in the United States and in the Soviet Union, but its origins certainly date back to the interwar period.

However, expertise and knowledge in many cases developed as a result of a close intertwining between knowledge that was generated abroad and the specific structures of the national settings. The years preceding the outbreak of World War I were on the one hand a period of consolidation and expansion of the nation state, and on the other a period in which science and expertise expanded into the international arena as never before.[35] Due to the legacy of the empires in Central Eastern Europe, many experts had not received their education and training in their post-1918 'home countries'. Before as well as after 1918, travelling was still an elite privilege. Many experts belonged to these elites and were therefore part of internal migration processes across the western and the eastern parts of Europe. In historiography, these processes have so far received less attention than, for example, transcontinental migrations.[36] The experiences these experts gained abroad (in contrast to a more permanent migration and remigration, this was also possible for short-term stays with Rockefeller Foundation grants, for example[37]) proved to be a great opportunity for many of the experts since their knowledge, generated in international exchange, was desperately needed, and they knew how to invest it.

Former scientists like the above-mentioned Kwiatkowski and the president of Poland, Mościcki, who in the interwar period turned their scientific careers into political ones, had also spent a certain time abroad: Mościcki mainly in Switzerland and Riga, Kwiatkowski in Munich. Many economists, entrepreneurs and scientists were active in the context of a scientific

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[35] ELISABETH T. CRAWFORD/ TERRY SHINN/ SVERKER SÖRLIN, The nationalization and denationalizing of science. An introductory essay, in: Denationalizing science. The contexts of international scientific practice, ed. by ELISABETH T. CRAWFORD/ TERRY SHINN/ SVERKER SÖRLIN, Dordrecht 1993, p. 1-42, p. 13; see also GEERT J. A. SOMSEN, History of Universalism. Conceptions of the Internationality of Science from the Enlightenment to the Cold War, in: Minerva 46 (2008), p. 361-379.

[36] ANNEMARIE STEIDL, European mobility. Internal, international, and transatlantic moves in 19th and early 20th centuries, Göttingen 2009.

[37] For the case of medical contacts, see PAUL WEINDLING, The League of Nations and International Medical Communcation in Europe, in: Sciences et langues en Europe. Une conférence organisée par le Centre Alexandre Koyré, ed. by ROGER CHARTIER/ PIETRO CORSI, Luxembourg 2000, p. 201-211; ALEKSANDRA WITCZAK HAUGSTAD/ ERIK INGEBRIGTSEN, National Policies and International Philanthropy. The Rockefeller Foundation and Polish and Hungarian Science between the World Wars, in: American Foundations in Europe. Grant-Giving Policies, Cultural Diplomacy and Trans-Atlantic Relations, 1920–1980, ed. by GIULIANA GEMELLI/ ROY MACLEOD, Brussels 2003, p. 53-72.

community already before 1918, as Jajeśniak-Quast demonstrates with the example of the Polish members of the Pan-European Movement.

From this constellation – and this is also taken up by Jajeśniak-Quast, Loose and Roswitha Reinbothe in this volume – certain tensions between evolving international expert cultures and the frameworks of the nation states within which the experts acted arose: The willingness to sacrifice the interests of science or expertise for the interests of the nation could collide with the necessity of transnational personal contacts and international collaboration.[38] Experts relied on a complex relationship between national and international affiliations, which they were well aware of and often intentionally employed.[39] Thus, internationalism, understood as a framework of a universal understanding of knowledge, went hand in hand with nationalism. Internationalism was not a counterforce to nationalism, but effectively channelled and facilitated it.[40] State structures and institutions, state subsidies and also state control on a national level were, and still are, essential factors for experts, since their fields of knowledge production are often enterprises politically and financially contained within the borders of the nation state. At the same time, their achievements had to (and still have to) measure up to international standards. Thus, there is no simple dichotomy between national and international space – they are closely intertwined and overlap, since international space constitutes a space that is inert and only exists when activated or constructed by actors or experts for knowledge-generating activities.[41]

Within this framework of a complex relationship between national and international affiliations, new relations between experts took shape and new forms of networks developed mainly due to the new means of communica-

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[38] Taking into account the particularly virulent German case, this has been discussed by PAUL FORMAN, Scientific Internationalism and the Weimar Physicists. The Ideology and Its Manipulation in Germany after World War I, Isis 64/222 (1973), p. 151-180, p. 177.

[39] The mechanics of internationalism. Culture, society, and politics from the 1840s to the First World War, ed. by MARTIN GEYER/ JOHANNES PAULMANN, Oxford 2001; MICHAEL ECKERT, Strategic Internationalism and the Transfer of Technical Knowledge, in: Technology & Culture 46 (2005), p. 104-131; JOHAN SCHOT/ VINCENT LAGENDIJK, Technocratic Internationalism in the Interwar Years. Building Europe on Motorways and Electricity Networks, in: Journal of Modern European History 6 (2008), p. 196-217.

[40] See SOMSEN, History of Universalism, p. 366.

[41] See CRAWFORD/ SHINN/ SÖRLIN, The nationalization and denationalizing of science, p. 36; see also LUDMILLA JORDANOVA, Science and nationhood. Cultures of imagined communities, in: Imagining Nations, ed. by GEOFFREY CUBITT, Manchester 1998, p. 192-211, and Transnational Political Spaces. Agents – Structures – Encounters, ed. by MATHIAS ALBERT, Frankfurt am Main 2009, p. 19.

tion that evolved in the nineteenth and twentieth centuries. These networks served as a base for various transnational movements.[42]

Following Patricia Clavin, transnationalism in this context is to be understood as a means for researching people, the social spaces in which they interacted, the networks they established and the ideas they exchanged.[43] Newly emerged expert groups tried to gain status and recognition through international meetings and congresses and used transnationalism as a strategic resource. In Jajeśniak-Quast's contribution we can observe that the members of the Pan-European Movement who featured the universal idea of giving up the nation state in favour of a European union and a common European market used their international ties to pursue business goals. Another example for the attempt to gain recognition would be the international eugenics movement that was present and active also in Central and Eastern Europe after 1918.[44] Public health in general developed very dynamically in Central and Eastern Europe and offered considerable chances for the experts in the field – in their home countries as well as in the international arena.[45]

For some of the newly founded networks, English as the new common language was not without consequence: For example, the International Research Council (IRC) was established under the auspices of the United States, and Germany thus lost its leading role in the arena of international scientific cooperation.[46] For newly founded countries in Central Eastern Europe like Poland and Czechoslovakia that were integrated into the IRC, this new cooperation created new opportunities. The defeat of the Central Powers in World War I had also undermined German as an international scientific language, a topic that Reinbothe elaborates in this volume. The

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[42] See STEFAN KAUFMANN, Einleitung. Netzwerk – Methode, Organisationsmuster, antiessenzialistisches Konzept, Metapher der Gegenwartsgesellschaft, in: Vernetzte Steuerung. Soziale Prozesse im Zeitalter technischer Netzwerke, ed. by STEFAN KAUFMANN, Zürich 2007, p. 7-21, p. 8.

[43] PATRICIA CLAVIN, Defining Transnationalism, in: Contemporary European History 14 (2005), p. 421-439.

[44] See 'Blood and homeland'. Eugenics and racial nationalism in Central and Southeast Europe, ed. by MARIUS TURDA/ PAUL WEINDLING 1900–1940, Budapest 2007; STEFAN KÜHL, Die Internationale der Rassisten. Aufstieg und Niedergang der internationalen Bewegung für Eugenik und Rassenhygiene im 20. Jahrhundert, Frankfurt am Main 1997.

[45] See for example MARTA ALEKSANDRA BALIŃSKA, For the good of humanity. Ludwik Rajchman, medical statesman, Budapest 1998; KLAUS GESTWA, Social and soul engineering unter Stalin und Chruschtschow, 1928–1964, in: Die Ordnung der Moderne, p. 241-277.

[46] ECKHARDT FUCHS, Wissenschaftsinternationalismus in Kriegs- und Krisenzeiten. Zur Rolle der USA bei der Reorganisation der internationalen *scientific community* 1914-1925, in: Wissenschaft und Nation in der europäischen Geschichte, ed. by RALPH JESSEN/ JAKOB VOGEL, Frankfurt am Main 2002, p. 263-284.

boycott of German science at the beginning of the interwar period heralded the decline of the German language as a means of transnational scientific communication. As a reaction, many German medical experts cultivated relations with Russia, for example. This newly formed relationship proved to be fruitful also in other expert circles like the military, but functioned only until the 1930s, when growing tensions between German racism and Soviet-style planning and technocracy cooled this budding exchange.[47]

The cooperation between Germany and Russia in the interwar period had been made possible also by a common distrust of the Allies and the newly emerged states, especially Poland, which had to deal with shifts in spatial references away from the former imperial powers Germany, Russia and Austria towards the nation state. Loose shows how Poland managed to recruit and train new functional elites using the example of the Wielkopolska region. By focusing on the involved experts, he develops a fresh view on the history of the newly established Polish administration after the long period of territorial division. Instead of perceiving this period as a 'clash of nations' and a period of Polish-German hostility, Loose is able to show that the process of exchanging elites and groups of experts was a gradual one, accompanied by intensive German-Polish communication. This was possible – and necessary – because the functional systems had to avoid the loss of their functionality and self-organization.[48] With this emphasis on agency, intercultural interactions become visible. This again underlines the close linkage between processes of nationalization and processes of transnationalization.[49]

It becomes apparent that the national does not necessarily and always subjugate all other spatial units (as was the case with the Pan-European Movement), and that expert knowledge challenged this by crossing borders, establishing networks and pursuing international collaboration. Europe in the twentieth century therefore seems to be a space characterized by tensions: tensions between nationally coined innovation systems and styles on the one hand and a process of transnationalization that partly overlays,

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[47] See WEINDLING, League of Nations, p. 210, and ĖDUARD I. KOLCHINSKII, Biologiia Germanii i Rossii-SSSR v usloviiakh sotsial'no-politicheskikh krizisov pervoi poloviny XX veka (mezhdu liberalizmom, kommunizmom i natsional-sotsializmom), Sankt Peterburg 2007; Doing medicine together. Germany and Russia between the wars, ed. by SUSAN GROSS SOLOMON, Toronto 2006.

[48] See Vom Gegner lernen. Feindschaften und Kulturtransfers im 19. und 20. Jahrhundert, ed. by MARTIN AUST/ DANIEL SCHÖNPFLUG, Frankfurt am Main 2007.

[49] MATTHIAS MIDDELL/ KATJA NAUMANN, Global history and the spatial turn. From the impact of area studies to the study of critical junctures of globalization, in: Journal of Global History 5 (2010), p. 149-170, p. 161.

partly undermines those systems on the other.[50] In this space the success or failure of expertise and experts, and the way they put their expertise together or form styles of their own, was and is highly dependent on the environment and the circumstances in which they are able to act.[51]

This certainly also holds true for the post-World War II period. Even if the Cold War to a large extent inhibited the international contacts experts relied on before 1939, and the newly formed states could only function by maintaining certain functional systems from former times in the political sphere, the economy or the sciences, the new demands for loyalty exceeded those of the nation states in the 1920s and 30s.

3. Reconsidering the Iron Curtain: Experts between East and West after 1945

The end of World War II and the beginning of the Cold War changed the global framework in which experts acted. On the one hand, the former allies launched an 'experts race' hiring German scientists. In this competition, the victorious powers of World War II ignored the Nazi pasts of the experts they recruited more or less of their own free wills. On the other hand, the Soviet Union and the Western Allies contended for spheres of influence in Europe and used their own expertise, scientific methods and managerial knowhow as instruments of power.[52]

A considerable amount of literature has been published on former Nazis in the service of the Western Allies.[53] These studies highlight the Western

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[50] HELMUTH TRISCHLER/ KILIAN STEINER, Innovationsgeschichte als Gesellschaftsgeschichte. Wissenschaftlich konstruierte Nutzerbilder in der Automobilindustrie seit 1950, in: Geschichte und Gesellschaft 34 (2008), p. 455-488, p. 465-466.

[51] See also JONATHAN HARWOOD, National Styles in Science. Genetics in Germany and the United States between the World Wars, in: Isis 78/3 (1987), p. 390-414.

[52] ANDREAS HEINEMANN-GRÜDER, 'Keinerlei Untergang'. German armaments engineers during the Second World War and in the service of the victorious powers, in: Science, Technology and National Socialism, ed. by MONIKA RENNEBERG/ MARK WALKER, Cambridge 1994, p. 30-50; JOHN KRIGE, American Hegemony and the Postwar Reconstruction of Science in Europe, Cambridge, MA 2006; Global Power Knowledge, ed. by JOHN KRIGE/ KAI-HENRIK BARTH, Chicago 2006; see also The Americanisation of European Business. The Marshall Plan and the transfer of US management models, ed. by MATTHIAS KIPPING/ OVE BJARNAR London 1998; CORINNA R. UNGER, Cold War Science. Wissenschaft, Politik und Ideologie im Kalten Krieg, in: Neue politische Literatur 51/1 (2006), p. 49-68.

[53] LINDA HUNT, Secret Agenda. The United States Government, Nazi Scientists and Project Paperclip, 1945 to 1990, New York 1991; BURGHARD CIESLA, Das 'Project Paperclip'. Deutsche Naturwissenschaftler und Techniker in den USA (1946 bis 1952), in:

democracies' Machiavellian approach in employing outstanding former Nazi scientists such as Wernher von Braun in the United States, where at the same time purportedly leftist scientists such as Robert Oppenheimer were persecuted in the McCarthy era.[54]

Christoph Mick draws our attention to the other side of the Iron Curtain, i.e. to the approximately 3,000 German scientists who were deported to the Soviet Union from 1945 to 1947.[55] Analysing autobiographical and archival material, he points out that many experts who had defined themselves as apolitical and thereby justified their loyalty to Nazi Germany could not transfer this strategy of self-legitimization to the Soviet context. The work conditions were too different from what the German scientists were used to, which eventually prompted them to at least passively resist. Their isolation even from Soviet research resulted in a process of rapid professional dequalification. Mick stresses the fact that 'even totalitarian dictatorships cannot simply force experts to be creative' (p. 197) and finds that the transfer of knowledge from Nazi Germany to the Stalinist Soviet Union after World War II failed to a large degree.[56]

Sari Autio-Sarasmo identifies mental barriers as another obstacle to technology transfer to the Soviet Union: The import of 'capitalist' technology created an ideological problem because it clashed with the idea of the superiority of the socialist system.[57] This obstacle was surmountable, however, as she shows in her case study on the cooperation of Siemens and

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Historische DDR-Forschung. Aufsätze und Studien, ed. by JÜRGEN KOCKA, Berlin 1993, p. 287-301.

[54] JESSICA WANG, American Science in an Age of Anxiety. Scientists, Anticommunism, and the Cold War, Chapel Hill 1999; KAI BIRD/ MARTIN J. SHERWIN, American Prometheus. The Triumph and Tragedy of J. Robert Oppenheimer, New York 2005.

[55] ULRICH ALBRECHT/ ANDREAS HEINEMANN-GRÜDER/ AREND WELLMANN, Die Spezialisten. Deutsche Naturwissenschaftler und Techniker in der Sowjetunion, Berlin 1992; CHRISTOPH MICK, Forschen für Stalin. Deutsche Fachleute in der sowjetischen Rüstungsindustrie 1945–1958, München 2000; MATTHIAS UHL, Stalins V-2. Der Technologietransfer der deutschen Fernlenkwaffentechnik in die UdSSR und der Aufbau der sowjetischen Raketenindustrie 1945 bis 1959, Bonn 2001.

[56] On the strategies of self-legitimization of former Nazi scientists in East Germany, see the recent case study GEORG WAGNER-KYORA, Vom 'nationalen' zum 'sozialistischen' Selbst. Zur Erfahrungsgeschichte deutscher Chemiker und Ingenieure im 20. Jahrhundert, Stuttgart 2009; on Soviet engineers, see SUSANNE SCHATTENBERG, Stalins Ingenieure. Lebenswelten zwischen Technik und Terror, München 2002.

[57] SARI AUTIO-SARASMO, Soviet Economic Modernisation and Transferring Technologies from the West, in: Modernisation in Russia since 1900, ed. by MARKKU KANGASPURO, JEREMY SMITH, Helsinki 2006, p. 104-123. See also KARSTEN RUDOLPH, Wirtschaftsdiplomatie im Kalten Krieg. Die Ostpolitik der westdeutschen Großindustrie 1945–1991, Frankfurt am Main 2004.

other West German enterprises with the Soviet Union in the Khrushchev era.

The Cold War years may have been the period of the most intense flux of expertise from east to west – not across the Iron Curtain, but from the Soviet Union to the countries of Eastern and Central Eastern Europe. Both superpowers tried to impose their respective political, economic and social systems in their spheres of influence in postwar Europe.[58] Thus, the Soviet Union used forced knowledge transfer to exercise power in its new satellites in Central Eastern Europe.[59]

Pál Germuska exemplifies this in a detailed account of the Sovietization of the Hungarian military industry in the 1950s, when Soviet advisers organized and supervised the transfer of arms technology and production models. The export of second-rate technology and the forced adoption of Soviet norms served the political end of subordinating Hungary to the 'big brother' in the East while, from a technological and economic point of view, it meant a dramatic backlash for Hungary.

What Germuska analyses in his case study also applies more generally to the entire region. The Soviet Union enforced the reorganization of higher education in Central Eastern Europe according to its own model[60] as well as the adoption of GOST standards instead of those technical norms which had been common up to that point, and continued to be used in

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[58] Reviewing the Cold War. Approaches, Interpretations, Theory, ed. by ODD ARNE WESTAD London 2000; Gleichschaltung unter Stalin? Die Entwicklung der Parteien im östlichen Europa 1944–1949, ed. by STEFAN CREUZBERGER/ MANFRED GÖRTEMAKER, Paderborn 2002; DONAL O'SULLIVAN, Stalins 'Cordon sanitaire'. Die sowjetische Osteuropapolitik und die Reaktionen des Westens 1939–1949, Paderborn 2003; JOHN LEWIS GADDIS, The Cold War. A new history, New York 2005; BERND STÖVER, Der Kalte Krieg 1947–1991. Geschichte eines radikalen Zeitalters, München 2007.

[59] ZOLTAN BARANY, Soviet Takeovers. The Role of Advisers in Mongolia in the 1920s and in Poland and Hungary after World War II, in: East European Quarterly 28/4 (1994), p. 409-433. For a comparative view, see BAICHUNG ZHANG/ JIUCHUN ZHANG/ FANG YAO, Technology Transfer from the Soviet Union to the People's Republic of China 1949–1966, in: Comparative Technology Transfer and Society 4/2 (2006), p. 105-171.

[60] PIOTR HÜBNER, Polityka naukowa w Polsce w latach 1944-1953. Geneza systemu, 2 vols, Wrocław 1992; JOHN CONNELLY, Foundations for Reconstructing Elites. Communist Higher Educational Policies in the Czech Lands, East Germany and Poland, 1945–1948, in: East European Politics and Societies 10/3 (1996), p. 367-392; JOHN CONNELLY, Captive University. The Sovietization of East German, Czech, and Polish Higher Education, 1945–1956, Chapel Hill 2000; I. V. KAZARINA, Vliianie SSSR na razvitie nauki v sotsialisticheskikh stranakh v 1952-1953 gg., in: Za 'Zheleznym zanavesom'. Mify i realii sovetskoi nauki, ed. by MANFRED CHAINEMANN/ ĖDUARD I. KOLCHINSKII, Sankt Peterburg 2002, p. 407-419; Universities under dictatorship, ed. by JOHN CONNELLY/ MICHAEL GRÜTTNER, University Park 2005.

Western Europe.[61] It founded COMECON and other specialized international organizations for the technological and economical cooperation between the socialist countries (e. g. the Joint Institute for Nuclear Research, Intersputnik and Interelektro).[62]

Taking into account that the working language in these organizations was Russian and that travelling to capitalist countries was subject to strong restrictions, the existence of these organizations resulted in the isolation of socialist experts and the decoupling of a 'socialist sphere of knowledge' from the rest of the world. The culmination of this kind of forced knowledge transfer – even if outdated or wrong – was the rapid spread of Trofim Lysenko's neo-Lamarckian biology in Central European academia after 1945, and its even faster disappearance after Lysenko lost support in the Soviet Union.[63] Another striking example of Central Eastern Europe's involuntary isolation was Stalin's refusal to let Czechoslovakia try to benefit from the Marshall Plan.[64] Finally, the early postwar years witnessed an elite exchange in the fields of technology and economy, even if the rupture was not as radical as among political elites.[65]

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[61] ZBIGNIEW KAMIŃSKI/ ANTONI RUSZKOWSKI, Prace normalizacyjne w RWPG, Warszawa 1965; Normy RVHP, Praha 1988; Standartizatsiia v Rossii 1925–2005, ed. by GRIGORII I. ĖL'KIN et al., Moskva 2005.

[62] ADAM ZWASS, The Council for Mutual Economic Assistance. The Thorny Path from Political to Economic Integration, Armonk 1989; JENNY BRINE, Comecon. The rise and fall of an international socialist organization, Oxford 1992; see also ZBIGNIEW M. KLEPACKI, Organizacje międzynarodowe państw socjalistycznych, Warszawa 1981; Wirtschaftliche und wissenschaftlich-technische Zusammenarbeit der RGW-Länder. Dokumente, Berlin 1981; Internationale ökonomische Organisation der RGW-Länder. Dokumente, Berlin 1985; VLADIMIR SOBELL, Technology Flows within Comecon and Channels of Communication, in: Technical Progress and Soviet Economic Development, ed. by ROBERT AMANN/ JULIAN COOPER, Oxford 1986, p. 135-152, especially table 7.5 (p. 151).

[63] NIKOLAI KREMENTSOV, Stalinist Science, Princeton 1997; IGOR J. POLIANSKI, 'Das Lied vom Anderswerden'. Der Lysenkoismus und die politische Semantik der Vererbung, in: Osteuropa 59/10 (2009), p. 69-88; WILLIAM DEJONG-LAMBERT, The new biology. Lysenkoism in Poland, Saarbrücken 2008; WILLIAM DEJONG-LAMBERT, The New Biology in Poland after the Second World War. Polish Lysenkoism, in: Paedagogica Historica 45/3 (2009), p. 403-420.

[64] KAREL KRÁTKY, Czechoslovakia, the Soviet Union, and the Marshall Plan, in: The Soviet Union in Eastern Europe, 1945-89, ed. by ODD ARNE WESTAD et al., London 1994, p. 9-25; JOANNA JANUS, Polska i Czechosłowacja wobec planu Marshalla, Kraków 2001; MICHAEL COX/ CAROLINE KENNEDY-PIPE, The Tragedy of American Diplomacy? Rethinking the Marshall Plan, in: Journal of Cold War Studies 7/1 (2005), p. 97-134.

[65] The Establishment of Communist Regimes in Eastern Europe, 1944–1949, ed. by NORMAN NAIMARK/ LEONID GIBIANSKII Oxford 1997; Alte Eliten in jungen Demokratien? Wechsel, Wandel und Kontinuität in Mittel- und Osteuropa, ed. by HANS-JOACHIM VEEN, Köln 2004; Elites and Social Change. The Socialist and Post Socialist Experience, ed. by HEINRICH BEST et al., Hamburg 2009.

The Iron Curtain was not, however, impenetrable. In recent years, interest in East-West-contacts during the Cold War, which always existed despite political rhetoric and embargo strategies such as the CoCom control lists, has increased.[66] These contacts were moreover not limited to 'soft' areas such as culture and sports.[67] The socialist countries also participated in the United Nations, its specialized agencies and other international professional and expert organizations. In her case study, Małgorzata Mazurek examines the impact of the international contacts of the Polish consumer movement in the late Communist period. Originally there was a division between the group of loyal state experts on consumption issues, which was considered to be apolitical and therefore allowed to internationally cooperate, and activists for consumer rights close to the *Solidarność* movement. Mazurek shows, however, that the shortcomings of the planned economy led to the politicization of both legal and semi- or illegal expertise on consumer issues. As a result, initially apolitical consumerism developed into a powerful oppositional branch in the People's Republic of Poland.

The transnational collaboration beyond the Iron Curtain that Mazurek illustrates for the field of consumerism shows that the superpowers shared common ground even in the era of strongest confrontation. In the bipolar world of the Cold War, the enemy always remained predictable since it

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[66] Kooperation trotz Konfrontation. Wissenschaft und Technik im Kalten Krieg, ed. by KLAUS GESTWA/ STEFAN ROHDEWALD, Special issue of Osteuropa 59/10 (2009); Internationalism and Science, ed. by AANT ELZINGA/ CATHARINA LANDSTRÖM, London 1996; Vom Gegner lernen; IVAN JAKUBEC, Schlupflöcher im 'Eisernen Vorhang'. Tschechoslowakisch-deutsche Verkehrspolitik im Kalten Krieg. Die Eisenbahn und Elbeschiffahrt 1945–1989, Stuttgart 2006; see also the research project 'Knowledge through the Iron Curtain. Transferring Knowledge and Technology in Cold War Europe'. (http://www.helsinki.fi/aleksanteri/kic/index.htm). On CoCom, see GARY BERTSCH, Technology Transfers and Technology Controls. A Synthesis of the Western-Soviet Relationship, in: Technical Progress, p. 115-134; IAN JACKSON, The Economic Cold War. America, Britain, and East-West Trade, 1948–1963, New York 2001.

[67] YALE RICHMOND, Cultural Exchange and the Cold War. Raising the Iron Curtain, University Park 2003; WALTER L. HIXSON, Parting the Curtain. Propaganda, Culture and the Cold War, 1945–1961, New York 1998; JENS NIEDERHUT, Wissenschaftsaustausch im Kalten Krieg. Die ostdeutschen Naturwissenschaftler und der Westen, Köln 2007; JENS NIEDERHUT, Grenzenlose Gemeinschaft? Die scientific community im Kalten Krieg, in: Osteuropa 59/10 (2009), p. 57-68; East Plays West. Sport and the Cold War, ed. by STEPHEN WAGG/ DAVID L. ANDREWS, London 2007; Sport zwischen Ost und West. Beiträge zur Sportgeschichte Osteuropas im 19. und 20. Jahrhundert, ed. by ARIÉ MALZ/ STEFAN ROHDEWALD/ STEFAN WIEDERKEHR, Osnabrück 2007; on media and propaganda, see ARCH PUDDINGTON, Broadcasting Freedom. The Cold War Triumph of Radio Free Europe and Radio Liberty, Lexington 2000; Massenmedien im Kalten Krieg. Akteure, Bilder, Resonanzen, ed. by THOMAS LINDENBERGER, Köln 2006; JAMES SCHWOCH, Global TV. New Media and the Cold War, 1946–69, Urbana 2009.

defended its interests rationally.[68] It was not only the experts in the secret services who relied on game theory to explain the enemy's behaviour, but in general the experts and scientists who advised the governments on both sides of the Iron Curtain along the lines of rational choice theories, and in this way impelled political leaders to act rationally. In other words: On the one hand experts intensified the confrontation by constructing atomic bombs, sending Sputnik into orbit or Eagle to the moon, but on the other spoke a common language beyond the Cold War rhetoric, which allowed them to collaborate in space missions beginning in the 1970s or to negotiate treaties on nuclear non-proliferation and arms control.[69]

The existence of these transnational expert networks during the Cold War and their common ideological backgrounds involving notions of 'modernity' was one of the main reasons why the Central Eastern European countries were able to transform into democratic states and knowledge societies so quickly and successfully after 1989.

[68] EVA HORN, Der geheime Krieg. Verrat, Spionage und moderne Fiktion, Frankfurt am Main 2007, p. 332-334; see also PETER M. HAAS, Introduction. Epistemic communities and international policy coordination, in: International Organization 46/1 (1992), p. 1-35; ALLISON L. C. DE CERREÑO/ ALEXANDER KEYNAN, Scientific Cooperation, State Conflict. The Roles of Scientists in Mitigating International Discord, New York 1998.

[69] MATTHEW EVANGELISTA, Unarmed Forces. The Transnational Movement to End the Cold War, Ithaca 1999; KAI-HENRIK BARTH, Cataclysts of Change. Scientists as Transnational Arms Control Advocates in the 1980s, in: Global Power Knowledge, p. 182-206.

EVA HORN

EXPERTS OR IMPOSTORS? BLINDNESS AND INSIGHT IN SECRET INTELLIGENCE*

What is an expert? What makes someone an expert? Expertise, to give at least a micro-definition, is being in the possession of a kind of knowledge and a capability that only few others share. What makes the expert unique is a depth of education and a degree of qualification and experience on a specific topic. Expertise, thus, is highly exclusive, which is what separates it from other forms on knowledge. What everybody knows or what everybody is able to do would hardly be called expertise.[1] The exclusivity of expertise gives experts a certain aura. They are valuable, highly esteemed (and very often highly paid) bearers of such knowledge. However, the problem arising with this exclusivity is how to appraise the individual quality of an expert's expertise. How can we distinguish an accomplished quantum physicist from an impostor who studied just long enough to pick up a couple of concepts and buzzwords? How can we distinguish a good doctor from a bad one? One would need to be a quantum physicist oneself, or a doctor, for that matter. In other words: Experts always need *other experts* to assess the value and quality of their expertise. This difficulty in the evaluation of an expert's qualification is intrinsic. It calls for certain administrative and epistemological structures and procedures, some of which we all know from the world of academia: academic exams and degrees, peer reviews before publishing, the exchange of ideas at conferences, criticism and reviewing of published research etc. The result of all these practises amounts to what one could call the academic 'reputation' or 'market value' of an expert – and this value is mostly constituted by the

* This contribution, which is rather oral in style, outlines facets of a topic that has been treated in more depth by the author in the sources listed in notes 5 and 13.

[1] For a general definition of the concept of expertise, see: The Nature of Expertise, ed. by MICHELENE T. H. CHI/ ROBERT GLASER/ MARSHALL J. FARR, Hillsdale 1988; for a broad overview over different aspects: The Cambridge Handbook of Expertise and Expert Performance, ed. by K. ANDERS ERICSSON et al., Cambridge 2006.

opinion of other experts. The goal of these academic rituals and rules is the creation (and perpetuation) of exclusivity: It means (in an ideal world) excluding the unqualified, the non-committed or, worst case, the impostors from the serious business of being a real expert in one's field.[2]

However, we should not forget that academia is not the only field creating the specific exclusivity of expert knowledge. Very often, expertise is exclusive not only in order to safeguard its quality, but simply in order to limit its accessibility, mostly for economic (and sometimes political) reasons. Think, for instance, of patents (i.e. the legally acknowledged ownership of a certain type of technological idea or procedure). The registration of a patent enables its circulation, but restricts the technical and commercial use of this knowledge to those who pay for it. Think of business secrets (such as the recipe for Coca Cola) or of what one could call 'the tricks of the trade'. These secrets are highly treasured goods whose circulation must be limited precisely to preserve their value – or rather: their price. And so are the experts who produce them: They are highly paid and bound by secrecy clauses and other rules to not ever divulge their knowledge, even if they leave the organization. Thinking about the nature of experts and expert knowledge, we have to keep in mind these intrinsic limitations. Knowledge floating freely to whoever is interested in it might be an ideal of scientific exchange and cutting-edge research, but it is certainly not the regular case in the production, circulation and usage of expert knowledge.

The type of knowledge I would like to discuss here is a very specific kind of expert knowledge. As a matter of fact, secret intelligence is exclusive in a much more radical way than scientific, economic or technological expertise. That is why, despite the lurid associations one might have in mind when it comes to the world of espionage and secret agents, secret intelligence can be used as a paradigmatic example for the difficulties and fallacies arising in the creation, processing and assessment of highly exclusive knowledge. Certainly, not every expert is a secret agent, but every secret agent is definitively an expert, and very often in the course of his or her work gets trapped in the constraints and fallacies that the exclusivity of this type of knowledge produces.

For a long time, i.e. during the Cold War, intelligence services saw themselves as quasi-academic institutions researching the world for any kind of information that political or military decision makers might need.

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[2] The Psychology of Expertise. Cognitive Research and Empirical AI, ed. by ROBERT R. HOFFMAN, New York 1992; JULIA EVETTS/ HARALD A. MIEG/ ULRIKE FELT, Professionalization, Scientific Expertise, and Elitism. A Sociological Perspective, in: The Cambridge Handbook of Expertise and Expert Performance, p. 105-123.

Intelligence, as one of its most influential theorists, Sherman Kent, defined it, is the threefold operation of gathering, interpreting and evaluating information, and then feeding it into the political process in the form of situation analyses, risk evaluation or preventive information on specific threats to the security of a country.[3] At first glance there is, structurally speaking, very little to distinguish intelligence from scientific research. Intelligence theorists themselves have thus often couched the specific problems of their knowledge production in the terms of theories of science, basing themselves on Karl Popper, Paul Feyerabend or Imre Lakatos.[4] This academic approach to intelligence defines it as a discipline in the general field of empirical social sciences, political science and area studies. It appears to be the prototype of applied science. However, even if the vast intelligence administrations that have been established after World War II might see their work as a kind of research and may even at first glance resemble think tanks or universities, a thoroughly academic idea of intelligence misses the true nature and origin of this particular type of knowledge.[5]

The origins of secret intelligence are to be found in war, not in academic research. Sun Tzu, a Chinese strategist of the fourth century B.C., and probably one of the most brilliant theorists of war and espionage, was the first to strongly recommend the use of spies in the preparation of a battle. His basic advice is: 'Know the enemy and know thyself.' Intelligence is the art of gathering reliable information on the enemy to prepare for a battle – or even to avoid the battle, as Sun Tzu puts it: 'To win one hundred victories in one hundred battles is not the acme of skill. To subdue the enemy without fighting is the acme of skill.'[6] Ever since, intelligence has become an indispensable tool, if not the basis of warfare: It implies the reconnaissance of the battle terrain or of zones of conflict and the spying out of the enemy's troops, weapons, fortresses, resources and – often most importantly – the enemy fighters' morale. In other words: A spy – the expert we are talking about – is essentially a warrior; intelligence is a kind of knowledge that is deeply rooted in war, conflict and violence, even if, ever since the Cold War, conflict may not always lead to an all-out battle. Intelligence is the knowledge of the enemy, be it an exterior enemy or an invisible, potentially internal enemy such as terrorists.

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[3] SHERMAN KENT, Strategic Intelligence for American World Policy, Princeton 1949.

[4] ISAAC BEN-ISRAEL, Philosophy and Methodology of Intelligence. The Logic of Estimate Process, in: Intelligence and National Security 4/4 (1989), p. 660-718.

[5] For a general theory of secret intelligence, see EVA HORN, Knowing the Enemy. The Epistemology of Secret Intelligence, in: Grey Room 11 (2003), p. 59-85.

[6] SUN TZU, The Art of War, Oxford 1963, p. 77.

The kind of knowledge needed in a situation of conflict or imminent danger has two basic characteristics that distinguish it from other types of knowledge: First, it must be produced and communicated very quickly and second, it must be gained (i.e. very often: stolen) and kept in utter secrecy. Information on the enemy is valuable only as long as you have it *before* the attack, and only as long as you have it without the enemy *knowing* that you have it. Secrecy and velocity in the gathering, processing and interpreting of intelligence data are thus vital to the value of the information produced.

Experts in this kind of business must therefore be, first and foremost, fast and clandestine. Their expertise must act on two very different, sometimes heavily conflicting levels: On the one hand, they may be experts of a certain specialization, say nuclear physics, weapons systems or fortification architecture. They must be able to understand the kind of information they are gathering or trading, as do scientists or military experts, and to assess the value of this information. On the other hand, in order to obtain the required data (which is, as a matter of fact, always illegal) they must be experts in what one could call the skills of dissimulation – a psychological form of competence. These skills include, for instance, the art of lying, of make-believe and persuasion, but also of cultural mimicry and psychological manipulation. Persons gathering secret intelligence must be quick in understanding a situation and sensing a looming danger, and they must be self-effacing enough to assume a totally artificial, often mousy personality in order not to attract any attention. Klaus Fuchs, a German physicist who worked at the nuclear research site at Los Alamos building the first atom bomb, stole important material from his work and secretly passed it on to the Soviets between 1941 and 1944. He was an expert in these two senses: an accomplished nuclear physicist, but also an accomplished master of disguise, who managed to live inside a scientific community whose very purpose and work he betrayed without ever raising suspicion. In his trial, he later described the relationship between these two dimensions of his existence as a form of 'controlled schizophrenia'.[7] Psychological skills and scientific expertise are not necessarily conjoined, a problem which may pose serious problems to the 'handling' of these kinds of sources.

Sometimes a scientist or military insider will break down under the stress of suspicion and betray himself, as eventually happed to Klaus Fuchs. Sometimes, however, the art of manipulation and make-believe will dominate over the actual specialization. In other words: There are many people in the shady world of secret intelligence who are not experts in anything but lying or pretending. Traitors and turncoats offer what they

[7] Quoted in MARGRET BOVERI, Der Verrat im XX. Jahrhundert, vol. IV, Verrat als Epidemie. Amerika, Reinbek 1960, p. 223.

usually call 'unfailing information' about their home country, their army or the group they pretend to belong to. This is when the vital question arises how to assess the quality of the information gathered from such sources. It is precisely this type of assessment which is so difficult to make, since – if the information is valuable – there will be no second and third expert view to corroborate the information. If a source is truly good, the information the person provides is unique and the person is the only 'expert' on the data in question.

What is needed to assess the value of a source? It necessarily involves questions such as, for example: Is the fake journalist hanging around in the hotel bars of Beirut really a liaison to the Hizbollah – or is he just another poser in search of recognition and money? Intelligence officers deal with these questions all the time, often without ever being able to definitively answer them. In 2002, the German foreign intelligence service BND got in contact with the Iraqi engineer Rafid Ahmed Alwan, who was asking for political asylum in Germany and promised to provide detailed information on mobile laboratories for chemical weapons he had helped to build on the orders of Saddam Hussein.

The question was whether he was just a refugee trying to get a residence permit or a reliable informant on Saddam Hussein's weapons of mass destruction. As we now know, the German and U.S. intelligence officers who interviewed Alwan and famously gave him the name 'Curveball' took his information as valuable until it was ultimately revealed in 2007 that he was never more than a compulsive impostor.[8] An impostor, however, who provided exactly the type of information the Bush administration was desperate to get in order to justify starting a war against Iraq. However, there are also cases in which potentially highly valuable information is disbelieved for political reasons: When the KGB Officer Yuri Nosenko defected to the U.S.A. in 1964, he claimed, among other things, to be in possession of important information about Lee Harvey Oswald. But was he perhaps a double agent on the mission of spreading disinformation in the American intelligence community? At least James Jesus Angleton, at the time CIA counterintelligence chief with a wildly paranoid mistrust towards everything and everyone, took him for a Soviet plant. He had him locked up in a CIA safe house for four years and interrogated for almost 1,300 days without ever believing a word Nosenko had to say.[9]

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[8] BOB DROGIN, Curveball. Spies, Lies, and the Con Man Who Caused a War, New York 2007.

[9] TOM MANGOLD, Cold Warrior. James Jesus Angleton. The CIA's Master Spy Hunter, New York 1991.

How can we assess the expertise of an expert? Only another expert can. But again, in the case of highly secret and illegally obtained knowledge, there is often only *one* single expert on the very information in question: the person who produced it. It is therefore extremely hard to estimate the veracity of information. Let me give an example: If, for instance, a source provided information about a pending bomb attack prepared by a group of young Muslim students affiliated to Al Qaida, what would we do? Immediately send an anti-terrorist squad to their student flat? Probably not – one would try to double-check. Is there any other evidence for such a plan coming from other sources? Who, one would ask, is this source anyway? Is the person really close to the group? What would be his or her motive to betray their plans? Money? Revenge? Fear? Or, worst case, is it possible that the information is divulged in order to focus the attention of the authorities on a fake case and divert it from the real plan? But, double-checking might reveal the source of the information and put the person in danger, or waste precious time.

To deal with these questions that have a tendency of bordering on unsolvable dilemmas, intelligence services have been organized in a complicated and highly compartmentalized form. Information will never (or only in a tightly controlled way) circulate inside the administration, it will mostly be dealt with by one specialized unit. It will also never circulate outside the house. This means that, for example, the FBI, in tracking down a group of terror suspects, would not obtain relevant information that the CIA already has about them – as happened in the case of one of the 9/11 terrorists, Zacarias Moussaoui. While in academic research, research results or arguments will always have to be widely circulated, evaluated and discussed within the scientific community, in the intelligence community there is no such thing as a peer review.

Karl Popper stressed the difficulty of ultimately verifying any claim to truth and instead pointed to the importance of falsification as a methodological principle.[10] In intelligence, there is no such possibility of falsifying a given hypothesis because there are hardly any peers who do similar and parallel research and who might come up with entirely different results or explanations. Moreover, no one will point to the fact that a certain approach might just be asking the wrong questions, calling for what in academia would be called a 'paradigm shift'.[11]

Instead of lateral circulation of knowledge between equals – a situation that is at least an ideal in academia – intelligence data take strictly hierarchical paths. Let us return to the example of information on a possible

[10] Cf. KARL POPPER, The Logic of Scientific Discovery, London 1959.

[11] THOMAS S. KUHN, The Structure of Scientific Revolutions, Chicago 1996.

terror threat from a student group. The information comes from, say, the sister of one of the students who is concerned about her brother's strange behaviour. She conveys it, possibly unaware that she is giving away harmful information, to a covert police liaison agent, a Muslim woman working in a café and picking up the gossip in some ethnic hotspot neighbourhood at the outskirts of London, Paris or Madrid. The liaison agent now shares her knowledge with the field officer in charge of her. The field officer puts it on file, writes a report and passes it on to his chief of section. The chief of section now will first of all try to ascertain the quality of the sources and ask additional questions: Who is the liaison? Why would someone tell her this? Who is the source? What do we know about her? Does anything in the story sound familiar or match data we already have? Do we have anything on the brother? The chief of section will also forward the information to her superiors, who might eventually start connecting the information with other cases from other sections of the administration.

This almost exclusively upward circulation of information, which has been called the 'stovepipes of knowledge' by former intelligence officer Melissa Boyle Mahle, is certainly an important tool to keep information from spreading between the departments.[12] This structure was essential in the times of the Cold War, when every colleague was a potential mole from the other side. The stovepipe system maintains the exclusivity of information, a security measure that was indispensable in an age when enemy secret services spent a great deal of time infiltrating each other's systems. With the stovepipe system, a mole in another intelligence department would never get his or her eyes on information he or she was not directly dealing with. But this system is less than appropriate for the situation today. Being built on hierarchical compartmentalization, it prevents or obstructs *lateral* double-checking – and, what is worse, makes it much harder to connect the dots of a situation on which one only has fragmented and partial information.

The stovepipe system, however, also serves as an anti-hysteria device, or rather, anti-impostor technique. The main concern of the chief of section when she receives the report from her field agent will be to question the source. She will urge her field agent – and perhaps even other field agents not in contact with the source and the liaison – to check on the sister. Do we have anything about her on the record? Does she have a reason to tell lies about her brother? Could we approach her directly? Should she be put under scrutiny? And how about the liaison? Is she in it for the money? Might she just be in need of new, interesting material in order to stay on

[12] MELISSA BOYLE MAHLE, Denial and Deception. An Insider's View of the CIA from Iran-Contra to 9/11, New York 2004.

our payroll? Or does she have private motives? What looks like an extremely distrustful and cumbersome reaction in fact has some quite good reasons. In the absence of the possibility to falsify information through peer experts, extensive double-checking is practically the only way of assessing its value. Where information cannot be verified openly and at face value, the only way to evaluate it is the evaluation of the person who produces it: *expert or impostor?* As the source and bearer of the specific kind of knowledge that secret intelligence is interested in, the expert is, at the same time, the only criterion to assess the quality of his or her expertise. The entire administration of secret intelligence thus is conceived to create experts who are able to evaluate other experts. Superiors are poised to distrust the material coming in from the field. While the agents who are busy 'out in the field' tend to trust their contacts (otherwise they would not be able to work with them) and to have similar perceptions of a given situation as their sources (since they belong to the same milieu), the secret intelligence administration receiving, processing and interpreting this information tends to have a more distanced and sceptical approach. What clashes here are not only two different sides in the process of intelligence production – the gathering vs. the interpretation of data – but also two different kinds of expertise. While the field agents are pragmatic, often military-trained experts in the art of clandestine activities, psychological manipulation and the discreet gathering of information, the hierarchically superior administration personnel are university graduates with more academic specializations such as the interpretation of military imagery, immigrant Muslim communities in Western Europe or illegal money transfer systems. What we have here is a chasm between two different, incommensurable and yet equally necessary forms of expertise: the psychological skills, the practical experience, the instinct and the personal bonds an agent forges with his or her sources versus the academic training, the theory, the rational approach, the so-called 'bigger picture' – two forms of expertise that certainly complement one another, but very often also collide.

Let me return to my initial remarks on the exclusivity of expertise. The exclusivity that defines expertise derives from specific social, educational and legal limitations of who may claim to be an expert and who will be recognized as such. Without a certain training, without certain tests and other forms of quality control, there would not be any recognizable expertise. However, the more exclusive a form of knowledge becomes, the more it is limited to a very small number of people able to double-check a set of data or an information, the harder it gets to evaluate the quality of someone's expertise. Secret intelligence represents an extreme of exclusivity through the ways in which it keeps its information secret, compartmentalizes its knowledge and treats its own product with a mix of mistrust, cau-

tiousness and hysteria. But the problem might not just be limited to the shady world of spies and anti-terror units. The more limited the access to a certain kind of knowledge, the more the circulation and critical assessment of knowledge and expertise is stymied, the more this paradoxically creates all sorts of epistemological pathologies: not just utter errors, but the possibility of make-believe, of impostors posing as experts and ultimately – and this might be the worst – a blindness that consists in asking the wrong questions or searching for answers in the wrong places. To provide a closing historical example: In spite of all the cleverness the Western intelligence community invested into guarding their administrations against enemy infiltration, one thing they were never able to conceive of was the fact that this enemy was in a dramatic decline. Nobody foresaw the end of the Cold War because all the experts were looking in the wrong direction. There was no one to falsify or to point out a different perspective. Perhaps the real danger lies not so much in impostors posing as experts but rather in experts blinded by their own expertise and its dazzling exclusivity, experts who are unable to realize that they have become impostors.[13]

[13] For a more comprehensive view on the history and epistemology of secret intelligence in the twentieth century, see EVA HORN, Der geheime Krieg. Verrat, Spionage und moderne Fiktion, Frankfurt am Main 2007.

II. Technocratic Thinking and Technological Expertise

KENNETH BERTRAMS

PLANNING AND THE 'TECHNO-CORPORATIST BARGAIN' IN WESTERN EUROPE AND THE UNITED STATES, 1914–44

DIFFUSION AND CONFUSION OF ECONOMIC MODELS

The traffic of political and economic ideas between Europe and the United States in the aftermath of World War I is no longer a *terra incognita* for historians. In the wake of Charles Maier's groundbreaking work on the transformation of bourgeois Europe,[1] numerous studies have contributed to sharpening the picture of *stabilization* which affected most stages of Western European political development after 1918 by stressing the role of the United States in this (mostly invisible) process.[2] These accounts suggest – and there is ample evidence to back this – that the American impact on Europe dates back to way before 1945, albeit in a less formal way. On the other hand, notwithstanding their indisputable merits, they all share the same *caveat*: Most of them tend to present this impact as a one-way street, namely as U.S. influence on Europe, without paying notice to the reverse direction. Of course, this monolithic bias has not gone unnoticed, as it triggered a debate on the definition and relevance of the Americanization process in Europe. As a result, the concept of Americanization began to be associated with ideas such as cross-fertilization, hybridization and appropri-

[1] CHARLES S. MAIER, Recasting Bourgeois Europe. Stabilization in France, Germany, and Italy in the Decade after World War I, Princeton 1975 (1988²); CHARLES S. MAIER, The Two Postwar Eras and the Conditions for Stability in 20th-Century Western Europe, in: American Historical Review 86 (1981), p. 327-352.

[2] MARVIN LEFFLER, The Elusive Quest. America's Pursuit of European Stability and French Security, Chapel Hill 1979; FRANK COSTIGLIOLA, Awkward Dominion. American Political, Economic, and Cultural Relations with Europe, 1919-1933, Ithaca 1988; WERNER LINK, Die amerikanische Stabilisierungspolitik in Deutschland, 1921–1932, Düsseldorf 1970; PATRICK COHRS, The Unfinished Peace after World War I. America, Britain and the Stabilisation of Europe, 1919-1932, Cambridge, MA 2005.

ation – notions that have largely replaced the older emission-reception model and other interpretative models tainted with Manichean attributes.[3] Refreshing as it may sound, this reformulation is nothing new. Antonio Gramsci already took up the issue in his twenty-second *Prison Notebook* entitled 'Americanism and Fordism'. Drawing on current observations, he comes to the conclusion that 'Americanization' is (a) a mirror-effect phenomenon which reveals a lot about the contemporary political situations in some European countries (i.e. in the mid 1930s); (b) a philosophy that cannot as such be summed up in a single formula; it rather encompasses different modes of action; and (c) a process resting on specific political and economic preconditions, the most important ones being the 'demographic structure' of the economic forces and the role of the state in fostering the appropriate organization to maintain an efficient and performing liberal economy.[4] To a certain extent, Gramsci's multidimensional approach in his analysis of the concept 'Americanization' has found a faithful and unexpected heir in the methodological mechanisms at work in the recent trends of transnational history. Both approaches converge in their ambition to bring out the dialectic dimension of the circulation of ideas by stressing the roles of actors, networks and points of intersection.

However, besides the benefits to be obtained from the transnational interpretation of the process of Americanization, undoubtedly there is more at stake than the mere focus on transatlantic dialectic ought to suggest *prima facie*. The point I intend to address is that a shared political-economic ideological matrix lies behind the Gramscian concept (and flagship) of 'Americanization', which I would call the techno-corporatist bargain. Especially effective during the interwar period in industrially-based and technology-oriented countries, it combined the attributes of social engineering derived from the application of technology to the social sciences, the denunciation of nineteenth-century laissez-faire economic liberalism and the contestation of the parliamentary regime as the backbone of liberal democracies. On a positive note, this techno-corporatist bargain aimed to provide an alternative to capitalism, socialism and fascism, or, more aptly phrased, it was an attempt determined to transcend them on an overarching basis. Planning, in this understanding, was at the core of this nonpartisan

[3] For instance ROBERT BOYER, Hybridization and Models of Production. Geography, History, and Theory, in: Between Imitation and Innovation. The Transfer and Hybridization of Production Models in the International Automobile Industry, ed. by ROBERT BOYER et al., Oxford 1998, p. 23-56; VICTORIA DE GRAZIA, Irresistible Empire. America's Advance through 20th-Century Europe, Cambridge, MA 2005.

[4] ANTONIO GRAMSCI, Americanism and Fordism, in: ANTONIO GRAMSCI, Selections from the Prison Notebooks, ed. by QUINTIN HOARE, GEOFFREY NOWELL-SMITH, New York 1971, p. 277-318.

political-economic ideology. The plan embodied the indisputable objective instrument which reconciled the elites and the masses and bridged the present with the future.[5]

In the ambitious framework I have just sketched, I will mainly focus on the renewed role of the state (i.e. the executive branch) and its alliance with, and reliance on, non-state actors in shaping this original expertise-based system. Of course, the historical conditions of this model differed from country to country and this national variation explains the various courses of their development. But behind the vast array of national/local differences lay a series of similarities, which should be taken into account in a study devoted to historical comparison. I have placed a special emphasis, as the reader will notice, on two national case-studies – the United States and Belgium. Despite the obvious limitations this focus implies, the social and ideological transformations that occurred in these two countries also concern the older and newer democracies of Europe after 1918. As such, they were part of a broader process of convergence of European societies in the twentieth century.

1. The Techno-Corporatist Bargain: Scope and Limits of a Notion

From the turn of the nineteenth to the twentieth century onwards, U.S. reformists of the Progressive Era and the heterogeneous protagonists of the '*nébuleuse réformatrice*'[6] in European countries sought to build consensus, transcend class struggle and engineer social peace in the industrial capitalist order.[7] The reforms they initiated and tried to implement, in other words, aimed at the preservation of industrial peace and social order in the context of a triple crisis – that of liberalism, democracy and capitalism. Although the gap might have been wide between their aspirations and achievements, the means they employed to reach the ends they envisioned are of striking actuality. As Maier has put it, the corporatist shift

[5] DIRK VON LAAK, Planung. Geschichte und Gegenwart des Vorgriffs auf die Zukunft, in: Geschichte und Gesellschaft 34/3 (2008), p. 305-326, p. 307.

[6] I am borrowing this phrase from Laboratoires du nouveau siècle. La nébuleuse réformatrice et ses réseaux en France, 1880–1914, ed. by CHRISTIAN TOPALOV , Paris 1999.

[7] DANIEL RODGERS, Atlantic Crossings. Social Politics in a Progressive Age, Cambridge, MA 1998. Whereas hitherto the focus had been on the 'two postwar eras', Rodgers's narrative allots the early twentieth century a central position in the shaping of common social preoccupations in Europe and the United States.

> 'involved the displacement of power from elected representatives or a career bureaucracy to the major organized forces of [...] society or economy, sometimes bargaining directly among themselves, sometimes exerting influence through a weakened parliament, and occasionally seeking advantages through new executive authority. In each case corporatism meant the growth of private power and the twilight of sovereignty'.[8]

In the theoretical framework of a corporatist regime, therefore, interest groups played the role equivalent to that of the mass public electorate in a liberal democracy composed of atomized individuals. This system of cooperative competition attracted actors from both the Left and the Right, though for different reasons. By urging labour representatives to join the bargaining in order to secure social harmony, it provided guarantees for workers of all sectors of the economy and full recognition of labour intermediaries. By involving labour leaders in the decision-making process, employers and entrepreneurs were able to escape from the old (i.e. Marxist) demarcation lines between labour and capital, let alone between social classes. Clashes were to be avoided in the name of stability. But the implicit motto behind it was efficiency, and its secular arm was science or scientific organization: 'Stability was increasingly defined in terms of efficiency, of greater control, of greater centralization, of closer cooperation between businessmen and a rationalizing government.'[9]

Efficiency, however, differs in many ways from politics, even from stabilization politics. Hence the stabilization-corporatist matrix paved the way for a new political rationale, which entailed the 'urgent need' for social and economic knowledge. Surely, the bureaucratic environment which emerged from World War I was more complex and needed coordination. But what was 'demanded' from science was more than mere facts or data competence – it was scientific legitimacy. In that sense also, the corporatist system (even in its liberal variant) relied strongly on expert

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[8] MAIER, Recasting Bourgeois Europe, p. 9. Maier goes as far as to use the notion 'corporatism' 'as a provisional description of social bargaining under fascism and democratic conditions alike.' (p. 9, n. 5). Since the focus here is on the interplay between two democratic countries, I will stick to the 'corporate-liberal' terminology. For more precision, see ELLIS W. HAWLEY, The Discovery and Study of a 'Corporate Liberalism', in: Business History Review 52 (1978), p. 309-320, as well as the other articles in this special issue; MARTIN SKLAR, The Corporate Reconstruction of American Capitalism, 1880-1916, New York 1988, p. 4-5, n. 1, p. 394, n. 32. For a critical appraisal of the term, see COLIN GORDON, New Deals. Business, Labor, and Politics in America, 1920-1935, Cambridge, MA 1994, p. 30-32.

[9] DAVID EAKINS, The Origins of Corporate Liberal Policy Research, 1916-1922. The Political-Economic Expert and the Decline of Public Debate, in: Building the Organizational Society. Essays on Associational Activities in Modern America, ed. by JERRY ISRAEL, New York 1972, p. 163-179, p. 179.

knowledge. In a pioneering work, Guy Alchon has coined the term 'technocratic bargain', which refers to the institutionalization of useful 'expert-like' social and economic knowledge in the traffic of ideas between state and non-state actors (including civil servants), industrialists and financiers, philanthropists and academics.[10] The outcome of this, among other things, was the dissolution of the chain of responsibility, if not the total loss of accountability in the democratic system.

National governments were certainly part of this process. Eager to break with the parliamentary system from which they originated – and which endured strong criticism after the war – public elites did not hesitate to delegate and diffuse power to undisputable intermediaries. They relied on two types of channels in this context: a flexible system of informal, interpersonal and episodic consultation on the one hand and, on the other, an official (or semi-official) network of bureaucratic agencies, advising boards or investigations committees, some of which were eventually institutionalized. Both were strongly penetrated by academic experts. The search for objective fact-finders became the ultimate weapon to reach consensual decisions among opposed partners. In their quest for neutrality, scientists were to be involved in the endeavour to apply the unquestionable methodology of science to political-economic issues. Nevertheless, the case for an overwhelmingly demand-based scheme should not be overstated; the supply-side theory needs to be fully explored as well. Correspondingly, one is struck by the sudden blooming of public, semi-public or private 'expert-like' institutions in the field of public administration. It has frequently been emphasized that this trend went hand in hand with the matured professionalization of social science in Western Europe and the United States.[11]

2. The Experience of World War I

'The real turning point in my thinking – and I believe in the thinking of American businessmen generally – was World War I,' wrote the influential

[10] GUY ALCHON, The Invisible Hand of Planning. Capitalism, Social Science, and the State in the 1920s, Princeton 1985, p. 5-6.

[11] MARY O. FURNER, Advocacy and Objectivity. A Crisis in the Professionalization of American Social Science, 1865-1905, Lexington 1975; THOMAS L. HASKELL, The Emergence of Professional Social Science. The American Social Science Association and the Nineteenth-Century Crisis of Authority, Urbana 1977; Social Sciences and Modern States. National Experiences and Theoretical Crossroads, ed. by PETER WAGNER et al., Cambridge 1991.

entrepreneur Bernard Baruch in his recollections of the period.[12] Appointed chairman of President Woodrow Wilson's War Industries Board (WIB), Baruch embodied the new nexus between business, labour and governmental milieus. Earlier experiences had paved the way for the institutional machinery that was soon to blossom during the interwar period in the United States. As Eakins notes, 'the prewar years of the Progressive Era had witnessed a new sort of rationalizing intervention in the economy'.[13]

A similar trend can be observed on the European continent, where the war triggered new experiences in the public administration of business. In France, three ministers had been particularly active in the reorganization and shaping of a rationalized economic policy. Albert Thomas, socialist minister of armaments (until September 1917), who was to become the first director of the International Labour Office ILO (a position he held from 1920 to his death in 1932), was a strong advocate of the '*union sacrée*' between industrialists and trade union leaders. Etienne Clémentel, Clémenceau's wartime minister of commerce, tried to steer the state back into the direction of the economy after a period of self-regulation through the establishment of a Ministry of Industrial Reconstruction. But the orientation and leadership of this administration went to a third actor – Louis Loucheur, Thomas's successor as minister of armaments – who clearly favoured the traditional associations of heavy industry producers (especially the national steel cartel, the *Comité des Forges*). Between market competition and state intervention, these three men extensively exploited the rhetoric of rationalization. They shared some of these perspectives with German industrialist and politician Walther Rathenau, expressed in his work *Neue Wirtschaft*, which advocated a combination of industrial self-government, employee participation and effective state control (rather than the extensive nationalization hailed by Thomas), but without his mystical or metaphysical underpinnings.[14]

Whether in Europe or in the United States, two different paths of stabilization-oriented reforms played key roles. One consisted in tackling the business-inspired issue of administrative reorganization. This strategy was employed by the U.S. President's Commission on Economy and Effi-

[12] BERNARD BARUCH, Baruch. My Own Story, New York 1958, p. 308. For a good biography, see JORDAN SCHWARZ, The Speculator. Bernard M. Baruch in Washington, 1917–1965, Chapel Hill 1981.

[13] EAKINS, The Origins, p. 169; ROBERT L. CHURCH, Economists as Experts. The Making of an Academic Profession in the United States, 1870-1920, in: The University in Society, vol. II, ed. by LAWRENCE STONE, Princeton 1974, p. 571-609.

[14] MAIER, Recasting Bourgeois Europe, p. 70-74; RICHARD F. KUISEL, Capitalism and the State in Modern France, New York 1981, p. 31-58.

ciency, whose findings on the federal budget system were largely ignored by Congress. Other commissions, also instituted during the Taft presidency, would be fairly successful in identifying the underlying reasons of the social turmoil brought about by the American industrial system's recent transformation (merger movements, structural reorganization, market preferences). Such ad hoc investigations, all tripartite in composition, were the U.S. Industrial Commission and the Commission on Industrial Relations. Although they ultimately offered different responses – and 'views' – to managing the economic transition, we should bear in mind that their legitimate representatives had deemed it appropriate to delegate to professional staffs the task to supply the executive branch with carefully researched recommendations (composed of previously unearthed data, hearings etc.).[15]

Beside matters of executive reorganization, business and labour issues constituted the second important path of reforms. Both questions were the key domains expert agencies and/or committees addressed. The war mobilization obviously enhanced this pattern of delegation to the producers of expert knowledge, especially in the sector of political-economic research. Due to the wide range of its competence and the high rank of its members, the WIB was foremost among the numerous governmental boards created during the war in producing convincing economic inquiry. Moreover, its participants, whether academics, civil servants, private researchers or employers, would be closely associated with the postwar establishment of one or more of the various platforms which constituted the new institutional base preceding the advent of the U.S. managerial state.[16] Due to their upper-class backgrounds and their highly visible professional settings, they formed a more or less homogeneous group of planners – in fact the first generation of modern U.S. planners.[17]

The formal outlook of Belgium's wartime intellectual mobilization was quite dissimilar from its American counterpart because of the occupation

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[15] MARY O. FURNER, Knowing Capitalism. Public Investigation and the Labour Question in the Long Progressive Era, in: The State and Economic Knowledge. The American and British Experiences, ed. by MARY O. FURNER/ BARRY SUPPLE, Cambridge 1990, p. 241-286, p. 268-286.

[16] On the WIB, see ROBERT D. CUFF, The War Industries Board, Baltimore 1973; ROBERT D. CUFF, 'We Band of Brothers'. Woodrow Wilson's War Managers, in: Canadian Review of American Studies 5/2 (1974), p. 135-148; ELLIS W. HAWLEY, Le nouveau corporatisme et les démocraties libérales. Le cas des Etats-Unis, in: Les soldats du travail. Guerre, fascisme et taylorisme, ed. by LION MURARD/ PATRICK ZYLBERMAN, Special Issue of Recherches 32-33 (1978), p. 335-354.

[17] See PATRICK D. REAGAN, Designing a New America. The Origins of New Deal Planning, 1890-1943, Amherst 1999, p. 1-27.

regime the country had to endure for four years. However, the *zeitgeist* was comparable – the outbreak of the war had exposed major flaws in the social, economic and political configurations of the 'old order'; the moment seemed right to foster alternative approaches.[18] Evidently, the committees that emerged in Belgium had to remain confidential and adapt to wartime conditions (shortages of technical facilities, transportation, correspondence etc.). Second, most of the actors who addressed these challenges were fairly new to the public arena; few of them had belonged to the prewar ruling elite. Finally, the situation of emergency dictated that efforts should concentrate first and foremost on the immediate postwar period. These three characteristics all came together in the Committee for the Recovery of National Industry (*Comité de relèvement de l'industrie nationale*), which stemmed from a series of study groups initiated and organized by Belgium's most important financial holding group, the Société Générale de Banque. As the latter became *de facto* responsible for the management of the country's financial interests during the government's exile in French Normandy, it enjoyed a relative margin of manoeuvre to set its own political agenda and organize its administration accordingly.

At the head of the Committee was the chairman of the Société Générale himself, Jean Jadot. Trained as an engineer at the (Catholic) University of Louvain, he could not be depicted as a 'Progressive' reformist. Yet, he was sufficiently aware of the magnitude of the crisis to call for a broadening of intellectual horizons and institutional networks.[19] Some members of the Committee belonged to the research staff of the Solvay Institute of Sociology. Created by the industrialist and philanthropist Ernest Solvay at the end of the nineteenth century, it was an independent research institute (although closely linked to the University of Brussels) dedicated to the advancement of the social sciences.[20] Even more influential than the Committee for the Recovery of National Industry was the National Committee for Food Relief (*Comité national de secours et d'alimentation*) set up at the initiative of Ernest Solvay, orchestrated by Dannie Heineman, chairman of the industrial holding Sofina, and headed by Emile Francqui, an unusual character,

[18] The comparison with the French case is relevant in this respect. See GERD HARDACH, Industrial Mobilization in 1914–1918. Production, Planning, and Ideology, in: The French Home Front, 1914–1918, ed. by PATRICK FRIDENSON, Providence 1992, p. 57-88.

[19] According to a participant, Jadot touted for the reconstruction of the Belgian industry 'interest groups and habits of discipline which were not incompatible with the [national] principles of freedom and independence'. (FERNAND VAN LANGENHOVE, L'action du gouvernement belge en matière économique pendant la guerre, Paris 1927, p. 119).

[20] JEAN-FRANÇOIS CROMBOIS, L'univers de la sociologie en Belgique de 1900 à 1940, Bruxelles 2002; KAAT WILS, La sociologie, in: Histoire des sciences en Belgique, ed. by ROBERT HALLEUX et al., vol. 1, Bruxelles 2001, p. 305-322.

formally delegate of King Leopold II in the Congo and then active in the acquisition of Chinese railroad concessions.[21] At the outset, this National Committee intended to coordinate the supply of food relief during the wartime with its American counterpart, the Committee for Relief in Belgium, headed by Herbert Hoover. Soon enough, however, it turned into a 'second government', coping with public interests that went beyond its initial mission. This shift was partly due to Francqui's energetic administrative skills and his own aspirations for power, but partly also to the intrinsic quality and efficiency of his fellow members in the National Committee. With a handful of them, Francqui was to become an indispensable link in the Belgian financial-political cogwheel after the war, contributing decisively to the blurring of the boundary between the private and the public sphere.

3. The Hooverian Momentum

Hoover and Francqui were not unknown to each other. They had met in China at the beginning of the century, where they had been tough competitors. Both engaged in humanitarian action during the war, these two self-made men were also eager to demonstrate their organizational capabilities in the area of public issues, after having proven their skills in the private sector. Considering the autocratic tendencies of their respective personalities, they were occasionally at odds over strategic problems concerning the food supply.[22] Ultimately, however, their cooperation was a huge success in saving the Belgian population from starvation. Moreover, the financial surplus from the two Food Committees enabled lasting realizations in the field of science after the war: an academic club (University Foundation), an exchange programme for Belgian and American scholars (Belgian American Educational Foundation) and diverse endowments to universities. In handling the money involved in these projects, it must be emphasized, Hoover and Francqui deliberately circumvented the government.[23] For

[21] Ernest Solvay et son temps, ed. by ANDRÉE DESPY-MEYER/ DIDIER DEVRIESE, Bruxelles 1997; LIANE RANIERI, Emile Francqui ou l'intelligence créatrice, 1863–1935, Paris 1985; LIANE RANIERI, Dannie Heineman. Un destin singulier, Bruxelles 2006, p. 181-205.

[22] GEORGE NASH, The Life of Herbert Hoover. The Humanitarian, 1914–1917, New York 1988, p. 26.

[23] KENNETH BERTRAMS, Beyond Academic Science. Hoover and Francqui's Legacy in Post-War Belgium, Proceedings of the Seminar Remembering Herbert Hoover and the Committee for Relief in Belgium, Louvain 2007, p. 38-47.

Francqui especially, it was a patriotic duty to avoid the intrusion of Belgium's traditional party politics into 'his' reorganization efforts.

Back in the United States, Hoover had made a great impression with his methods of executive decision making and voluntary cooperation.[24] For thirty years or more, historians have reappraised Hoover's activities as secretary of commerce (1921–28) and then president (1929–33) as laying the foundations of a 'new economic era' or an 'associative state', which, to some extent, paved the way for Roosevelt's highly praised New Deal. According to historian Ellis W. Hawley, this new social-economic 'associative order', coloured by Hoover's commitment to social engineering and his faith in a humanized scientific management, would function

> 'through promotional conferences, expert inquiries, and cooperating committees, not through public enterprise, legal coercion, or arbitrary controls; and like the private groupings to which it would be tied, it would be flexible, responsive, and productive, staffed by men of talent, vision, and expertise, and committed to nourishing individualism and local initiative rather than supplanting them'.[25]

In fact, even before Hoover was sworn into office in 1921, his new approach had been tested during the second Industrial Conference Wilson had set up in December 1919 after the failure of the first initiative, which had ended in a strong disagreement between the leaders of organized capital (Elbert Gary) and labour (Samuel Gompers). After all, the Labour Commission set up by the Peace Conference at Versailles, which Gompers also chaired, had already experienced the organization of a tripartite system. It managed to draft the constitution that was about to launch the International Labour Organization.

By the same token, the second conference's final report, largely influenced by Hoover himself, witnessed the ascendance of corporate managerialism over industrial democracy,[26] although the latter would spread

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[24] ROBERT D. CUFF, Herbert Hoover, the Ideology of Voluntarism, and War Organization during the Great War, in: Herbert Hoover. The Great War and Its Aftermath, ed. by LAWRENCE E. GELFLAND, Iowa City 1979, p. 23-39.

[25] ELLIS W. HAWLEY, Herbert Hoover, the Commerce Secretariat, and the Vision of an 'Associative State', 1921–1928, in: Journal of American History 61/1 (1974), p. 116-140, p. 118-119. See also WILLIAM J. BARBER, From New Era to New Deal. Herbert Hoover, the Economists, and American Economic Policy, 1921–1933, Cambridge, MA 1985.

[26] Given the antecedent, President Wilson had preferred that 'there should be no recognition of distinctive groups [at the 2nd Industrial Conference], but that all of the new representatives should have concern that our industries may be conducted with such regard for justice and fair dealing that the workman will feel himself induced to put forth his best efforts, that the employer will have an encouraging profit, and that the public will not suffer at the hands of either class'. (New York Sun press clipping, 21 November 1919, in National

progressively through many of the largest American firms. According to the report, organized labour had to give way to shop councils for matters of collective bargaining, federal legislation in industrial relations was to be avoided and the promotion of private solutions to industrial disputes was the unique role assigned to the government. Overall, private arrangements outweighed the need for public policy.[27] This embryonic social design rested on a two-layer institutional setting: on the one hand, an antistatist corporatism relying on private-based initiatives which reflected Hoover's own antibureaucratic stance (embodied by semi-public agencies like the National Bureau of Economic Research, headed by Harvard's economic historian Edwin F. Gay and Columbia's economist Wesley Clair Mitchell) and, on the other hand, a positive statism more inclined to take advantage of the traditional nexus of interest-group politics (which the Bureau of Agricultural Economics represented as an ideal prototype).[28]

But could the 'associational' architecture of the state respond to the emerging postwar challenges, especially in the social-economic field? And did it produce a reference model for other industrial countries to emulate? It does not seem so at first sight, though the replication – to some extent – of the 'industrial democracy' systems in European plants (and in some European legislation) could be seen as a true social innovation of the decade. Daniel Rodgers harshly notes that Hoover's Commerce Department was 'a virtual factory of public policy innovation' which produced 'social politics of a highly attenuated sort'. Drawing a comparison with contemporary European systems of social insurance, 'which were thickening and deepening in the 1920s toward more systematic and broader coverage', he concludes that 'the one-by-one innovations of American welfare capitalists barely changed the overall odds in a wage earner's life'.[29] Weak as the American welfare schemes were in the 1920s (and still are, for that matter), Hoover's 'associational' pattern nonetheless prefigured many elements that would be recaptured by his successor and rival in the White House.

Archives at College Park, MD, General Records of the Department of Labor [RG 174], Office of the Secretary William B. Wilson, General Subject Files, box 4, 13/178).

[27] CHARLES E. HARVEY, John D. Rockefeller, Jr., Herbert Hoover, and President Wilson's Industrial Conferences of 1919–1920, in: Voluntarism, Planning, and the State. The American Planning Experience, 1914–1946, ed. by JOHN E. BROWN/ PATRICK D. REAGAN, Westport 1988, p. 25-46, p. 37-38.

[28] ELLIS W. HAWLEY, Economic Inquiry and the State in New Era America. Antistatist Corporatism and Positive Statism in Uneasy Coexistence, in: The State and Economic Knowledge, p. 287-324, p. 308-310.

[29] RODGERS, Atlantic Crossings, p. 378.

4. A New Blueprint for Industrial Relations?

Another critique is due to Rodgers's appraisal of Europe's social security environment after World War I: His assessment may be accurate for *some* countries, such as Germany, where a mandatory system of social insurance had been introduced by Bismarck in the late 1880s in order to counter the Left, but it proves misguiding for the bulk of European countries, and especially for Belgium. Although universal suffrage was obtained shortly after the war, the Belgian systems of social insurance and labour rights overtly lagged behind in various aspects. Specific target legislations were adopted throughout the interwar period, but they were neither part of, nor did they sketch a global design of social policy. The state with its historically minimal role and scope in matters of social politics must be emphasized here. Nurtured by the Catholic ideology, it aimed to reconcile two opposing principles: the impossibility to deny the harsh social situation on the one hand, and the impossibility to organize a public system of mandatory social insurance that would have superseded (if not annihilated) the action of charity on the other. This unsuccessful method of social conciliation – coined as a system of freedom and subsidiarity – only began to dissolve after the war.[30]

Different initiatives based on the flexible model shaped by the National Committee for Food Relief began to flourish after the war. For instance, the government set up a Committee for the Study of the Economic Situation in August 1920 as a way to tackle the increasing price problems. Breaking away from the traditional format of nineteenth-century working groups exclusively composed of atomized labour and business individuals, this committee not only urged representatives from organized groups of employers and labour to join in, it also encompassed non-state actors working as experts. Considering the antecedents, these were no minor innovations. They meant that the adherence to an organized group constituted a de facto criterion of admission, although such groups were only in the process of being formally organized, let alone recognized. By the same token, resorting to a kind of social-economic knowledge as embodied by experts was strikingly premature in a context where science-based consultancy had not been considerably developed for public purposes. Despite the evidence that these meetings yielded few (if any) tangible outcomes, the committee lay

[30] For a good overall description, see BEN SERGE CHLEPNER, Cent ans d'histoire sociale en Belgique, Bruxelles 1956. More recent but more specific are GUY VANTHEMSCHE, Les paradoxes de l'Etat. L'Etat face à l'économie de marché, 19ème–20ème siècles, Bruxelles 1997 and GUY VANTHEMSCHE, Le chômage en Belgique de 1929 à 1940. Son histoire, son actualité, Bruxelles 1994.

the ideological foundations of original future legislative proposals (such as the linkage between the increase of labour productivity in exchange for the uniform introduction and enforcement of the eight-hour workday, which was eventually legally implemented in June 1921),[31] and it heralded the sociological patterns of corporatism for other official meetings.

Among the plausible explanations for this formal legacy, the interpersonal dimension plays a rather important role. A significant number of the committee members had taken part, in one way or another, either in one of the various wartime confidential gatherings (Committee for the Recovery of National Industry, National Committee for Food Relief) or in the sessions of the International Labour Conference in Washington, D.C. in October 1919 (and the later meetings of the ILO in Geneva). Moreover, a connection with the social-engineering approach of industrial relations as promoted by Hoover might have been established through the presence of the engineer Albert Van Hecke, who had toured U.S. factories between April and May 1918 with the Belgian Mission in the United States on Industrial Management. The Belgian government in exile had launched this study group in order to investigate 'the movement of opinion, which is known in Europe under the name of "Taylorism" and in the U.S.A. under that of "scientific management"', and to judge whether the implementation of such mechanisms would be appropriate in Belgian plants in order to facilitate a rapid recovery.[32]

Another member of this mission would attain fame in political circles – Hendrik De Man. A convinced socialist intellectual, De Man was then active in the training section of the Belgian socialist union. In a little book he wrote about his stay in the United States, he clearly makes the distinction between two sides of the same coin: the practice of 'Taylorism' on the one hand, which physically and psychologically undermines the worker, and that of social bargaining on the other, which paves the way for the spread of 'industrial democracy'. Against the 'backward quality of enterprise', which supposedly dominated Belgian industry, he staunchly supported the 'prompt and full adoption of the American principle: high wages and low costs'.[33] Likewise, he was not hostile towards the idea of increasing the levels of labour productivity if the measure was balanced by high salaries and/or a reduction in working hours. De Man's analysis of the labour conditions in the United States is typical of the proponents of a 'revisionist' socialism, which claims to interpret the worker's situation

[31] CHLEPNER, Cent ans, p. 303-304, 316-319.

[32] Ministère de l'industrie, du travail et du ravitaillement, Le travail industriel aux Etats-Unis. Rapports de la mission d'enquête, vol. I, Bruxelles 1920, p. 5.

[33] HENRI DE MAN, Au pays du taylorisme, Bruxelles 1919, p. 98, 103.

without reference (and deference) to the traditional Marxist class-based ideology. This theoretical positioning would be confirmed and detailed in 1926 with the publication of *Zur Psychologie des Sozialismus* (translated into several languages), in which De Man reasserts the importance to infuse the foundations of socialist ideology with morality and spiritual order.[34]

Later, in the early 1930s, De Man formally began his political career as leader of the Belgian Socialist Party's campaign during the Great Depression. The measures he set forth to tackle mass unemployment and restore economic growth were catalogued in a *Labour Plan*, which benefited from extensive propaganda. Highly complex and ambivalent in its details, one of the political outcomes of the plan was that it epitomized the transition from socialization to nationalization. Resting on the fecund rhetoric of (municipal, urban, regional) planning, which united numerous experts during the interwar period (most notably through transnational platforms like the International Union of Local Authorities), De Man set the agenda of a technician-based economic policy, whose primary aim was to place a regulatory state at the head of social and economic organization. For this purpose, he launched diverse (and mostly unsuccessful) initiatives while he was minister.[35] Most important, however, is the undeniable fact that the state was assigned an essential role in De Man's macro-political script, even if bureaucratic centralism was to be avoided.

The leftist interpretation of Taylorism De Man had contrived was no exception at the time. Somehow it reconnected with Thorstein Veblen's plea against the 'price system', that is, the speculative ('unproductive') side of capitalism, which received some resonance through the short-lived experience of the group Technocracy Inc., created at the beginning of the 1930s. In this respect, the role model the engineer Taylor had depicted in his *Principles of Scientific Management* (1911) was about to become a fruitful legacy on an international scale. Herein lay one of the key components of the technocractic ideology. Lenin, for instance, had grasped quite accurately the political outcomes of an economic policy placed under the banner of technological innovation. 'No dark power,' he said in 1920, 'can

[34] The best account centred on De Man remains MIEKE CLAEYS-VAN HAEGENDOREN, Hendrik De Man. Biografie, Antwerpen 1972. More controversial yet stimulating is ZEEV STERNHELL, Ni droite ni gauche. L'idéologie fasciste en France, Paris 1983 (Bruxelles 2000²), p. 249-275, 331-363.

[35] Among De Man's misconceived attempts was his establishment of the Office de redressement économique (OREC), designed to counter the deflationary measures usually taken by the traditional economists active in the Ministry of Finance. See GUY VANTHEMSCHE, De mislukking van een vernieuwde economische politiek in België voor de Tweede Wereldoorlog. De OREC van 1935 tot 1938, in: Revue belge d'histoire contemporaine 13/2-3 (1982), p. 339-389.

withstand the union of the representatives of science, the proletariat and technique'.[36] American engineers, on the other hand, were eager to take action in that direction. Under the coordination of several state agencies, technical assistance was provided en masse from the United States to Soviet Russia from the mid 1920s onwards. While Soviet workers and technicians were trained in the U.S.A., Soviet engineers toured American plants.[37] Individual engineers like Charles Steinmetz, head of the Research & Development department at the General Electric Company, made no secret of his political commitment to the Soviet system and his desire to help the Soviet Union organize and develop along the lines of rationalization.[38]

5. The Planning Alternative

For potential technocrats inspired by social engineering, planning was the ultimate solution. However, due to the adaptable character of *plans*, the notion needs to be put cautiously in its proper context. For instance, it is necessary to historicize De Man's *Labour Plan*, just like it would appear relevant to appreciate the variable interpretations it elicited in French political milieus. Put briefly, the French version of De Man's '*planisme*' aroused the interest of and spanned from Marcel Déat's '*néo-socialisme*' (hostile to the traditional French Socialist Party and the Communists alike) to André Philip's reformist socialism (tainted with concerns for collective bargaining and trade union representation).[39] In Germany, the concepts of *Gemeinwirtschaft* and *organische Wirtschaft* were mainly associated with the right-wing side of the political spectrum. Although technocratic 'system builders' like Rathenau had paved the way for the reorganization of the German economy during World War I along the lines of *Rationalisierung*, from the 1920s onwards the notion of planning became more and more associated with political movements on the Right, like the so-called *Konservative Revolution*.[40]

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[36] Quoted in W. HARRY ARMYTAGE, The Rise of the Technocrats. A Social History, London 1965, p. 226.

[37] Ibid., p. 224-225.

[38] RONALD R. KLINE, Steinmetz. Engineer and Socialist, Baltimore 1992, p. 27-49.

[39] FRANÇOIS DENORD, Néo-libéralisme version française. Histoire d'une idéologie politique, Paris 2007, p. 27-36.

[40] DIETER GOSEWINKEL, Zwischen Diktatur und Demokratie. Wirtschaftliches Planungsdenken in Deutschland und Frankreich. Vom Ersten Weltkrieg bis zur Mitte der 1970er Jahre, in: Geschichte und Gesellschaft 34/3 (2008), p. 327-359, p. 333-335; DIRK VON LAAK, Zwischen 'organisch' und 'organisatorisch'. 'Planung' als politische Leitkate-

We must bear in mind that planning was not the only alternative model to liberalism. Other ideological trends also offered a so-called 'third way' of consensus-building between the social classes. Since the early twentieth century, the corporatist mindset enjoyed considerable popularity among Catholic organizations of workers and employers. In Fascist Italy, the corporative economy was articulated in a series of *enti pubblici*, sectorial public administrations that enjoyed considerable autonomy in organizing production on the local and national level. To a large extent, the corporatist patterns in Italy have survived the death of fascism.[41] Moreover, the proximity between Italian intellectuals and technocrats and their counterparts in Soviet Russia persisted throughout the 1930s.[42] The reconciliation between the social classes in the name of social welfare and economic growth also formed the core of the *Quadragesimo Anno* encyclical issued by Pius XI on 15 May 1931. Throughout the 1930s, Catholic organizations sought to frame a corporatist-inspired legislation on industrial relations. These attempts culminated in the legalization of industrial cartels in the 1930s: in Japan in 1931, Italy 1932, U.S.A. and Germany 1933, Switzerland and Great Britain 1934, France, Belgium and the Netherlands 1935.[43]

In the United States, a new generation of planners, who drew on their experience from the wartime and Hoover's associative state, served in Roosevelt's various national planning agencies between 1933 and 1943. Whether academics (Charles E. Merriam, Wesley Clair Mitchell), corporate managers (Frederic A. Delano, Henry S. Dennison) or leaders of philanthropic foundations (Beardsley Ruml), they all formed a cohesive subgroup of action-oriented intellectuals within the larger influential cohort of 'brain trusters' or 'New Dealers'. In their professional practice, they sought to mobilize their networks, to gain inspiration from foreign countries and to make the greatest possible use of social science research to advise policy makers in all branches of the federal government. 'As part of this advisory planning process,' historian Patrick D. Reagan notes, 'the planners sought to promote education and cooperation among major organized groups such as the liberal element of the corporate sector of the

gorie zwischen Weimar und Bonn, in: Griff nach dem Westen. Die 'Westforschung' der völkisch-nationalen Wissenschaften zum nordwesteuropäischen Raum (1919–1960), ed. by BURKHARD DIETZ/ HELMUT GRABEL/ ULRICH TIEDAU, Münster 2003, p. 69-90, p. 73-75.

[41] MARIUCCIA SALVATI, The Long History of Corporatism in Italy. A Question of Culture or Economics? in: Contemporary European History 15/2 (2006), p. 223-244.

[42] ALFREDO SALSANO, Ingegneri e politici dalla razionalizzazione alla 'rivoluzione manageriale', Torino 1987, p. 95-159.

[43] GUY VANTHEMSCHE, De Belgische overheid en de kartels tijdens het interbellum. Situering en analyse van de wetgeving op de verplichte kartelvorming, in: Revue belge de philologie et d'histoire 61/4 (1983), p. 851-894.

business community, organized labor, and all levels of government – corporatist members of the organizational society.'[44]

As such, the planning activities undertaken during the New Deal era seemed to be distinctively 'American', as they resulted from a combination of business-government cooperation, countercyclical fiscal measures, public works regulations and executive branch reorganization. Yet, these statist- or antistatist-oriented experiments paralleled the planning efforts undertaken in many European countries to propose an alternative to the traditional liberal economy, which was considered responsible for the Great Depression.[45] There were striking similarities between both sides of the Atlantic in the ways national governments attempted (more or less successfully) to tackle the social and economic problems that arose from an excessive confidence in 1920s liberal capitalism. Expert advice, which had blossomed as private initiatives during the earlier decade, was now institutionalized in the public system. Rodgers argues (in a quite pleonastic manner) that between all the measures taken by the national governments to struggle against the crisis, 'the difference was in the mix of policy ingredients; the family resemblances were, from country to country, largely the same'.[46] The sociologist Karl Mannheim observed ironically that in a modern industrial society, 'there is no choice between planning and *laissez-faire*, but only between good planning and bad'.[47] Speaking before the American Association for the Advancement of Science, Roosevelt's Secretary of Agriculture Henry A. Wallace argued that 'if the planning of the engineer and of the scientist in their own field' could be followed by 'comparable planning in the social world', man would be 'freed from economic insecurity'.[48]

These convergent policy tendencies were no surprise to contemporary actors and spectators. After all, most of the New Deal experiments had been tested earlier, whether in Europe or in the United States. Still, some salient aspects of the post-crisis programmes were original. If the inspiration for social programmes supposedly stems mostly from European coun-

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[44] PATRICK D. REAGAN, Creating the Organizational Nexus for New Deal National Planning, in: Building the Organizational Society, p. 95.

[45] KENNETH BERTRAMS, Une inspiration tout en contrastes. Le New Deal et l'ancrage transnational des experts du planning, 1933-1943, in: Genèses 71 (2008), p. 64-83. See also MARIO TELO, Le New Deal européen. La pensée et la politique sociales-démocrates face à la crise des années trente, Bruxelles 1988. For the French case, see KUISEL, Capitalism, p. 93-127.

[46] RODGERS, Atlantic Crossings, p. 419.

[47] Quoted in MARK MAZOWER, Dark Continent. Europe's Twentieth Century, London 1999, p. 207.

[48] Quoted in ARMYTAGE, The Rise of the Technocrats, p. 249.

tries during the 1920s – a fact confirmed by the frequent reference to German, Scandinavian, Dutch or even French achievements in the literature drafted by U.S. progressives – the impressive packaging of Roosevelt's New Deal was such that the direction of traffic was now reversed, or at least more balanced. From social housing policies to welfare schemes, the Roosevelt administration showed its European counterparts that it could execute the designs that mouldered in the drawers of progressive lobbying agencies and expert bureaus. Alongside this practice-oriented surface, the spatial centre of the production of ideas had gradually shifted since the war. Neither strictly American nor rigorously European, it lay somewhere in the Atlantic Ocean. John Maynard Keynes, undoubtedly the guru of anti-classical economics from the mid 1930s onwards, was still in good company with his colleagues from U.S. universities who laid greater emphasis on the institutional dimension of economic reforms: Adolf A. Berle, Gardiner C. Means, John Maurice Clark, Rexford G. Tugwell and the above-mentioned Wesley C. Mitchell.[49]

6. Conclusion: From Cooperation between Classes to a Classless Society

After a 'first postwar era' centred around social peace, self-justification and the legitimization of liberal restoration, Maier describes the 'second postwar era' as focusing on industrial performance and an economy of abundance.[50] The analysis of this purported transition from the politics of stability to the politics of productivity is highly accurate and relevant. Yet, under the surface of outcomes and achievements, avowed goals and explicit ambitions, one is struck by the range of similar mechanisms that were employed to achieve these aims. Similarity, in this case, is only an offspring of continuity between the two sides of the 'second postwar fence'. Essential seeds of postwar labour collective bargaining contained a corporatist essence, the new regulatory 'mixed' state, which was supposed to come to terms with the social-liberal design of capitalism shaped at the Liberation, drew on prewar planning conceptions.

Conceived both as a political instrument and a rhetorical tool, planning has enabled us to draw comparisons between different political regimes, situated at both sides of the ideological spectrum. In a recent historical

[49] WILLIAM J. BARBER, Designs within Disorder. Franklin D. Roosevelt, the Economists, and the Shaping of American Economic Policy, 1933-1945, Cambridge, MA 1996.

[50] MAIER, The Two Postwar Eras.

essay, Wolfgang Schivelbusch has suggested that Roosevelt's America, Mussolini's Italy and Hitler's Germany shared significant economic and political practices behind their systemic differences. With a dash of provocation, he goes as far as to encapsulate these regimes as 'three new deals' of the 1930s.[51] By and large, Schivelbusch's endeavour is strikingly reminiscent of a previous attempt by James Burnham in his book *The Managerial Revolution* (1941), which also included the communist experience in the comparison. For Burnham, a 'historical bond' united Stalinism (communism), Nazism (fascism), and New Dealism: '[A]gainst differing developmental backgrounds and at different stages of growth, they are all managerial ideologies. They all have the same historical direction: away from capitalist society and toward managerial society.'[52]

Both authors agree that class reconciliation was an essential part of the political strategies in the 1930s. Interestingly, however, Schivelbusch speculates that this could also be interpreted in terms of an ideological transfer: '[W]hile Fascist Europe took over the American creed of classlessness, New Deal America imported major elements of European economic and social order.'[53] Without doubt, this suggestion should be carefully researched in the future.

[51] WOLFGANG SCHIVELBUSCH, Three New Deals, New York 2006.

[52] JAMES BURNHAM, The Managerial Revolution, New York 1941, p. 186.

[53] SCHIVELBUSCH, Three New Deals, p. 188.

STEFAN ROHDEWALD

MIMICRY IN A MULTIPLE POSTCOLONIAL SETTING

NETWORKS OF TECHNOCRACY AND SCIENTIFIC MANAGEMENT IN PIŁSUDSKI'S POLAND

Technocracy as a concept with this name is historically a young and inherently modern idea: It evolved at the end of World War I in the U.S.A. and has its ideological roots in conceptions developed by Saint-Simon at the beginning of the nineteenth century.[1] Thus, the idea must be situated in the very broad cultural context of the pivotal roles that science and technology play in any concept of societal 'modernity'.[2] The euphoric belief in scientific progress and the hopes to organize and improve mankind and the economy through science are central elements of the Industrial Revolution and the profound societal changes that characterized the late eighteenth century, intensifying from the turn of the nineteenth to the twentieth century. These concepts were also connected to models of societal change, as far as they envisaged the political rule of an elite over the masses. While

[1] FRANK FISCHER, Technocracy and the Politics of Expertise, Newbury Park 1990, p. 68-71; ROBERT B. CARLISLE, The Birth of Technocracy. Science, Society, and Saint-Simonians, in: Journal of the History of Ideas 35/3 (1974), p. 445-464; BRUNO BELHOSTE, KONSTANTINOS CHATZIS, From Technical Corps to Technocratic Power. French State Engineers and their Professional and Cultural Universe in the First Half of the 19th Century, in: History and Technology 23/3 (2007), p. 209-225, p. 216-217; a philosophical sketch: HERMANN LÜBBE, Technokratie. Politische und wirtschaftliche Schicksale einer philosophischen Idee, in: Allgemeine Zeitschrift für Philosophie 25/1 (2000), p. 119-139. See also the contribution by Kenneth Bertrams in this volume. I am obliged to Dirk Uffelmann for numerous helpful remarks.

[2] Cf. SAMUEL N. EISENSTADT, Tradition, Wandel und Modernität, Frankfurt am Main 1979, p. 259-262; MARK ERICKSON, Science, Culture and Society. Understanding Science in the Twenty-First Century, Cambridge, MA 2005, p. 11-13. FISCHER, p. 59-60; Moderne Zeiten. Technik und Zeitgeist im 19. und 20. Jahrhundert, ed. by MICHAEL SALEWSKI/ ILONA STÖLKEN-FITSCHEN, Stuttgart 1994; exemplary: KLAUS GESTWA, Technik als Kultur der Zukunft. Der Kult um die 'Stalinschen Großbauten des Kommunismus', in: Geschichte und Gesellschaft 30 (2004), p. 37-73.

some writers – in the framework of these plans – imagined a dichotomy between a ruling, technocratic elite and the governed masses, others simply visualized how technicians and engineers could better cooperate with authorities and governments. Politics would then be legitimized through the knowledge of experts, who would in turn be legitimized by their education. Soon the term 'technocracy' came to imply governing through technically conceived modes of decision making. With the entry of the United States into World War I in 1917, scientific experts rather than private entrepreneurs began to manage the militarization of economy and society.[3]

The concept scientific management, developed by Frederick Taylor at the end of the nineteenth century, emerged in this broad socio-cultural context of an ever increasing belief in the importance of science and technology for the progress of countries and their societies. According to Taylor, scientific procedures were to rationalize the process of production by enhancing the division of labour. While scientific management was intended to make the work of humans more efficient, technocrats wanted to substitute it with automation. Taylor's scientific management has been described as 'one of the most famous of all technocratic theories' that has 'at times been elevated to a basic American ideology'.[4]

This contribution focuses on the development of these and similar concepts by exemplary actors in the specific setting of interwar Poland, including their social networking with fellow scientists or experts – sometimes within, sometimes across national boundaries – and government authorities. Thus, following the key questions of this volume, central themes addressed in this contribution are the historical relationships or networks between experts, as well as their relations to the state and the media in national as well as international contexts. The focus will be less on a one-to-one transfer of cultural practices from West to East than on the reinvention and adaption of concepts in a process of transnational communication, challenging national narratives and stressing phenomena of entanglement as well as a pluralization of perspectives.[5] This transnational historical perspective

[3] WOLFGANG SCHIVELBUSCH, Entfernte Verwandtschaft. Faschismus, Nationalsozialismus, New Deal. 1933-1939, München 2005, p. 50-51.

[4] FISCHER, Technocracy, p. 25. See also the contribution by Elisabeth van Meer in this volume.

[5] Cf. Transatlantischer Kulturtransfer im 'Kalten Krieg'. Perspektiven für eine historische vergleichende Transferforschung, ed. by HELKE RAUSCH, special issue of Comparativ. Leipziger Beiträge zur Universalgeschichte und vergleichenden Gesellschaftsforschung 16/4 (2006); KIRAN KLAUS PATEL, Der Nationalsozialismus in transnationaler Perspektive, in: Blätter für deutsche und internationale Politik 9 (2004), p. 1123-1134; ANDREAS ACKERMANN, Das Eigene und das Fremde. Hybridität, Vielfalt und Kulturtransfer, in: Handbuch der Kulturwissenschaften. Themen und Tendenzen, ed. by FRIED-

underscores relations and developments that transgress the boundaries of nation states on the one hand, while sharpening comparisons between national societies on the other.[6]

First, I will briefly outline the role of Czechoslovakia as a sort of 'communication link' that facilitated the transfer of ideas from the United States to Poland. In the 1920s, Czechoslovakia briefly became the spearhead in the quest for the reorganization of work in Central Eastern Europe. The resulting perceived subaltern position of Poland, which aspired to a leading role in this regard, significantly influenced the thoughts and actions of prominent Polish scientists at the time, among them also the technical engineer Karol Adamiecki.

Second, I will explore in depth the technocratic visions of Tadeusz Dzieduszycki, one of the first conservative scientists in Poland to comment on Mussolini's corporatist changes in Italy, which tried to circumvent class warfare by integrating both entrepreneurs and working people in a combined, albeit illiberal, political system. Dzieduszycki was an important Polish publicist and one of the most significant voices in the contemporary debate, propagating societal and political ideas strongly influenced by fascism in the interwar period.[7] His case can exemplarily show the entanglement of discourses in Poland with the at this time widespread propensity to change the political system in Western and Central Europe, as well as in the United States, always with Mussolini's reforms in mind[8]: His voluminous writing concentrates on the role of scientists and technicians as ex-

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RICH JAEGER/ JÖRN RÜSEN, vol. 3, Stuttgart 2004, p. 139-154; exemplarily on technology, i.e. technocracy: JUTTA SCHERRER, 'Einholen und überholen.' Amerikanische Technologie aus sowjetrussischer Sicht. Die zwanziger und frühen dreißiger Jahre, in: Vom Gegner lernen. Feindschaften und Kulturtransfers im Europa des 19. und 20. Jahrhunderts, ed. by MARTIN AUST/ DANIEL SCHÖNPFLUG, Frankfurt am Main 2007, p. 179-208; OLIVIER DARD/ DIETER GOSEWINKEL, Planung, Technokratie und Rationalisierung in Deutschland und Frankreich während der Weltkriegsära, in: Vom Gegner lernen, p. 209-233.

[6] MICHAEL WERNER/ BÉNÉDICTE ZIMMERMANN, Vergleich, Transfer, Verflechtung. Der Ansatz der Histoire croisée und die Herausforderung des Transnationalen, in: Geschichte und Gesellschaft 28 (2002) p. 607-636; Transnationale Geschichte. Themen, Tendenzen und Theorien, ed. by GUNNILLA BUDDE/ OLIVER JANZ/ SEBASTIAN CONRAD, Göttingen 2006; MARTIN KOHLRAUSCH, Technologische Innovation und transnationale Netzwerke. Europa zwischen den Weltkriegen, in: Journal of Modern European History 6/2 (2008), p. 181-195. Working on cultural historical dimensions of the history of technology in the 20th century: www.histech.nl/Tensions, accessed 25 February 2009; Kooperation trotz Konfrontation. Wissenschaft und Technik im Kalten Krieg, ed. by KLAUS GESTWA/ STEFAN ROHDEWALD, Special issue of Osteuropa 59/10 (2009).

[7] MACIEJ MARSZAŁ, Włoski faszyzm w polskiej myśli politycznej i prawnej 1922–1939, Wrocław 2007, p. 243, 324.

[8] SCHIVELBUSCH, Entfernte Verwandtschaft, p. 17.

perts, promoting his own various socio-political conceptions, such as 'solidary imperialism', as he calls American Fordism.[9]

Third, I will elucidate the specific nature of Poland's multiple postcolonial situation at the time, as Dzieduszycki's ideas must be regarded as deeply embedded in this historical context. The postcolonial perspective[10] helps explain the functions of the discourse technocrats used and established in building Poland as a newly independent and up-to-date, technologically sophisticated modern country. Are there forms of 'mimicry', 'mockery' or 'parody'[11] of the leading American example to be found in the process of transforming parts of the former, early modern Polish-Lithuanian multi-ethnic and multi-confessional Commonwealth into a modern Polish nation state with its own civilizatory or 'technocratic' mission? As I will discuss later in more detail, Poland historically played an ambivalent role in this regard: Having colonized Ruthenia, i.e. today Ukraine and Belarus, it later became the object of Prussian, Russian and Austro-Hungarian imperial ambitions.[12] I will thus also investigate if strate-

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[9] WŁODZIMIERZ MICH, Tadeusza Dzieduszyckiego utopia technokratyczna, in: Annales Universitatis Mariae Curie-Skłodowska. Sectio K 4 (1997), p. 59-65.

[10] Here only two exemplary titles: BILL ASHCROFT/ GARETH GRIFFITHS/ HELEN TIFFIN, Post-Colonial Studies. The Key Concepts, London 2000; Habsburg postcolonial. Machtstrukturen und kollektives Gedächtnis, ed. by JOHANNES FEICHTINGER/ URSULA PRUTSCH/ MORITZ CSÁKY, Innsbruck 2003.

[11] HOMI K. BHABHA, Of Mimicry and Man. The Ambivalence of Colonial Discourse, in: HOMI K. BHABHA, The Location of Culture, London 1994, p. 121-131; '[M]imicry is never very far from mockery, since it can appear to parody whatever it mimics.' ASHCROFT, GRIFFITHS, TIFFIN, 'mimicry', in: ASHCROFT/ GRIFFITHS/ TIFFIN, Post-Colonial Studies, p. 139-142, p. 139.

[12] On Poland, Lithuania and Ruthenia, cf. HANS-JÜRGEN BÖMELBURG, Czy Rzeczpospolita była imperium? Imperial turn w historiografii, struktury państwowe w Europie Środkowowschodniej i 'imperialna' warstwa pojęciowa w XVI-XVII wieku, in: Rzeczpospolita w XVI–XVIII wieku. Państwo czy wspólnota?, ed. by BOGUSŁAW DYBAŚ/ PAWEŁ HANCZEWSKI/ TOMASZ KEMPA, Toruń 2007, p. 43-57; STEFAN ROHDEWALD/ STEFAN WIEDERKEHR/ DAVID FRICK, Transkulturelle Kommunikation im Großfürstentum Litauen und in den östlichen Gebieten der Polnischen Krone. Zur Einführung, in: Litauen und Ruthenien. Studien zu einer transkulturellen Kommunikationsregion (15.–18. Jahrhundert)/ Lithuania and Ruthenia. Studies of a Transcultural Communication Zone (15th-18th Centuries), ed. by STEFAN ROHDEWALD/ DAVID FRICK/ STEFAN WIEDERKEHR, Wiesbaden 2007, p. 7-33, p. 19-20. On the role of Germany, see PHILIPP THER, Imperial instead of National History. Positioning Modern German History on the Map of European Empires, in: Imperial Rule, ed. by ALEKSEJ I. MILLER/ ALFRED J. RIEBER, Budapest 2004, p. 47-66, p. 49-50. Not only on the cultural consequences of Russian rule: DIRK UFFELMANN, 'Ich würde meine Nation als lebendiges Lied erschaffen'. Romantik-Lektüre unter Vorzeichen des Postkolonialismus, in: Romantik und Geschichte. Polnisches Paradigma, europäischer Kontext, deutsch-polnische Perspektive, ed. by ALFRED GALL et al., Wiesbaden 2007, p. 90-107. On the role of the Habsburgs in Poland: HANS-CHRISTIAN MANER, Zum Problem

gies to give Poland an excessive, compensative self-confidence in the international competition of new empires in the interwar years can be considered an adapted version of the strategy labelled 'signifying nation', discernible in the nineteenth-century writings of Adam Mickiewicz to describe a future, never quite achievable national ideal as a means to subvert the imperial discourses of others.[13] Was it the aim of the actors in question to share in the 'symbolic capital'[14] linked to the idea of becoming an accepted member of an imagined[15] modern[16] national as well as global community in the nineteenth century and the interwar years?

1. Scientific Management as an Opportunity for the Czechs to Become the 'Yankees of Europe'

Before turning to Europe, let us take a last brief excursion to the United States: There, the emergence of the concept of technocracy went hand in hand with the development of social networks. Technocrats organized themselves into several groups after World War I. Associations such as the Soviet of Technicians – obviously inspired by the Soviet Union – or the Technical Alliance, whose members were scientists and engineers, emerged. The latter was renamed Technocratic Inc. in 1933.[17] Yet, although there was a lively technocratic movement and a 'technocracy craze, with technocracy organizations springing up across the country',[18] only few engineers embraced the socialist elements of their conceptions.[19] Thus,

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der Kolonisierung Galiziens. Aus den Debatten des Ministerrates und des Reichsrates in der zweiten Hälfte des 19. Jahrhunderts, in: Habsburg postcolonial, p. 153-163.

[13] UFFELMANN, 'Ich würde meine Nation als lebendiges Lied erschaffen', p. 92-100; DIRK UFFELMANN, Litauen! Mein Orient, in: Orientalismus in slavischen Kulturen und Literaturen. Konstellationen einer anderen Moderne, ed. by WOLFGANG S. KISSEL, forthcoming. On shared Russian and Polish orientalism: IZABELA KALINOWSKA, Between East and West. Polish and Russian Nineteenth-Century Travel to the Orient, Rochester 2004.

[14] PIERRE BOURDIEU, Raisons pratiques. Sur la théorie de l'action, Paris 1994, p. 56

[15] BENEDICT ANDERSON, Imagined Communities. Reflections on the Origin and Spread of Nationalism, Revised Edition, London 1991.

[16] SHMUEL N. EISENSTADT, Multiple Modernities, in: Multiple Modernities, ed. by SHMUEL N. EISENSTADT, New Brunswick 2002, p. 1-29.

[17] FISCHER, Technocracy, p. 84-85.

[18] PETER MEIKSINS, The Myth of Technocracy. The Social Philosophy of American Engineers in the 1930s, in: History of Political Thought 21/3 (2000), p. 501-523, p. 510.

[19] Ibid., p. 511.

many American engineers with access to leading positions remained uninterested.[20]

Nevertheless, the new discourse was powerful. Quite soon, the new scientific concepts, and with them the nucleus of a social network of enthusiastic scientists, spread to Europe – and not only to countries like Italy, France, Germany and Greece.[21] During this time, they also took root in Czechoslovakia, Poland and – in a more disguised form – the Soviet Union as well.[22] In fact, the American New Deal of the 1930s as well as Italian Fascism and German National Socialism where in a certain way related to the challenge the Soviet Union's attempt to realize a 'world of work and technics' posed – 'fascist intellectuals and technocrats' were highly interested in Stalin's experiment.[23] For the German conservative revolutionary Ernst Jünger, for example, 'political differences were nothing but surface phenomena, that is, different labels for one fundamental change towards increased planning' by experts.[24] In this sense, Fascism and National Socialism can be regarded as attempts to adapt Europe to America.[25]

Czechoslovakia was at this time perceived in the United States as the 'Yankee of Europe', a young and eagerly modern state developing along American lines, not less, but seemingly even more so than the older, established Western European nation states. Professor Tomáš Garrigue Masa-

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[20] Ibid., p. 511, 523.

[21] CHARLES S. MAIER, Between Taylorism and Technocracy. European Ideologies and the Vision of Industrial Productivity in the 1920s, in: Journal of Contemporary History 5/2 (1970), p. 27-61; THOMAS ROHRKRÄMER, Antimodernism, Reactionary Modernism and National Socialism. Technocratic Tendencies in Germany, 1890-1945, in: Contemporary European History 8/1 (1999), p. 29-50; STEFAN WILLEKE, Die Technokratiebewegung in Deutschland zwischen den Weltkriegen, in: Technikgeschichte 62/3 (1995), p. 221-246; YIANNIS ANTONIOU/ MICHALIS ASSIMAKOPOULOS/ KONSTANTINOS CHATZIS, The National Identity of Inter-war Greek Engineers. Elitism, Rationalization, Technocracy, and Reactionary Modernism, in: History and Technology 23/3 (2007), p. 241-261.

[22] HELENA POLREICHOVÁ, 'Yankee of Central Europe'. The First Well-Hidden World Congress of Scientific Management in Prague, July 20th-30th 1924, PIMCO, in: Prager wirtschafts- und sozialhistorische Mitteilungen/ Prague Economic and Social History Papers 1 (1994), p. 45-98, p. 46; KENDALL E. BAILES, The Politics of Technology. Stalin and Technocratic Thinking among Soviet Engineers, in: The American Historical Review 79/2 (1974), p. 445-469; SUSANNE SCHATTENBERG, Stalins Ingenieure. Lebenswelten zwischen Technik und Terror in den 1930er Jahren, München 2002; PETER TEMIN, Soviet and Nazi Economic Planning in the 1930s, in: The Economic History Review. New Series 44/4 (1991), p. 573-593. Using the term 'technocracy' only as an analytical tool, and not as an element in the history of a discourse: DON K. ROWNEY, Transition to Technocracy. The Structural Origins of the Soviet Administrative State, Ithaca 1989.

[23] SCHIVELBUSCH, Entfernte Verwandtschaft, p. 129, 132.

[24] ROHRKRÄMER, p. 40-41 (author's translation).

[25] SCHIVELBUSCH, Entfernte Verwandtschaft, p. 21.

ryk, the founder of the republic and its first president, appears to have deliberately promoted the legitimation and symbolic capital of the young republic by making it and himself the bellwether of modernity in Central Europe. As early as 1919, he succeeded in founding the Academy of Work, supporting scientists such as Stanislav Špaček (1876-1854), the first chairman of the Czech Technical and Economic Union founded after 1918, in their endeavours to institutionalize the association. As far as scientific management is concerned, it has been remarked that Western European and Polish scientific experts were at this time foremost in the development of contents and principals of management, whereas Czech technicians were the pioneers of organizing international conferences about this topic. Indeed, in 1924 the First World Congress of Management took place in Prague. Americans and Czechs founded the *Congrès International de l'Organisation Scientifique* (CIOS), whose European headquarters were in Prague and whose secretary general was Czech – until the French took over after 1927.

In Prague, the Hoover Library was to become the first special library of management in Europe. This quick development not only had its roots in prewar associations of technicians and engineers from Bohemia, but was also from the beginning embedded in an international context: By 1920, besides the usual diplomacy, a team of top Czech experts – including the prominent Špaček – was dispatched to Washington, D.C. to provide technical and economic information in close cooperation with other newly founded scientific institutions in Prague. In fact, PIMCO, as the First World Congress on Scientific Management was called, was the result of long years of scientific exchange and close cooperation between American and Czech specialists.[26] Embracing the U.S.A.'s pragmatic scientific, economic and cultural guidance,[27] Czech engineers and scientists used the ideology of technocracy to legitimize their own status as well as their new state.

Beside the 614 participants from Czechoslovakia, more than two hundred foreign scientists from all over Europe, as well as fifty from the United States, attended the 1924 congress. Among the European participants were as many as forty-one Polish scientists.[28] Interpreting these ciphers, it seems that scientists from the eastern part of Central Europe tried to constitute themselves as central participants in the global project of

[26] POLREICHOVÁ, 'Yankee of Central Europe', p. 46-49, 59, 63-69.

[27] Cf. FRANK SCHUMACHER, Die Vereinigten Staaten. Imperialismus als Way of Life? in: Ein Platz an der Sonne. Die Geschichte der Kolonialreiche, ed. by ROBERT ALDRICH, Stuttgart 2007, p. 278-303.

[28] POLREICHOVÁ, 'Yankee of Central Europe', p. 69.

scientific and societal modernity, and to be rather more mainstream 'modern' by embracing the American discourses in a voluntary act of self-colonization directly rather than to represent a type of peripheral modernity on the fringe of Europe. On the other hand, the scarcity of Western European scientists attending the conference was probably due to the perceived peripheral location of Prague.

2. The Envy and Ideal of Polish Scientists: Czech Scientific Management

Among the Polish participants were the professors Karol Adamiecki (1866-1933) and Edwin Hauswald (1868–1942) – known for having adapted the American conception of Taylorism in their development of scientific 'harmonizing and harmonograms' as well as so-called 'productivism'.[29] Both of them, like Špaček, had received their university training under the imperial regimes before continuing their careers in the newly independent republics. Adamiecki obtained a degree in technological engineering in the imperial capital St Petersburg in 1891. Later, he worked for some time in Southern Russia, i.e. Ukraine. From 1919 onwards, he taught at the Politechnical Institute in Warsaw. Adamiecki, like his Czech colleagues, not only developed concepts, but networks as well: In the years 1923 to 1924, he was to promote several circles and organizations of engineers. His activities were crucial to facilitating the first Polish Congress on the Scientific Organization of Work, or the science of management, by December 1924.[30]

But apparently, Poland's scientific experts were at this time still not very successful compared to the achievements of their Czech colleagues, let alone the Americans. The Polish scientist Tadeusz Dzieduszycki wrote about PIMCO that the overly self-confident Polish participants soon became jealous in Prague, remarking that 'our own accomplishment has

[29] Ibid., p. 54. On one of Adamiecki's inventions: EDWARD R. MARSH, The Harmonogram of Karol Adamiecki, in: The Academy of Management Journal 18/2 (1975), p. 358-364; ZYGMUNT CIECHANOWSKI, Hauswald, Edwin, in: Polski Słownik Biograficzny, vol. 9, Wrocław 1960/61, p. 319-320.

[30] BOLESŁAW ORŁOWSKI, Adamiecki, Karol, in: Słownik polskich pionierów techniki, ed. by BOLESŁAW ORŁOWSKI, Katowice 1984, p. 13-14; PIOTR DRZEWIECKI, Adamiecki, Karol, in: Polski Słownik Biograficzny, vol. 1, Kraków 1935, p. 24-25; MARIA WOJDAK, Sylwetki Profesorów Politechniki Warszawskiej. Karol Adamiecki (1866-1933), Warszawa 1983, http://bcpw.bg.pw.edu.pl/dlibra/doccontent?id=815&dirids=7, accessed 21 February 2009.

appeared to be unexpectedly small'.[31] In Dzieduszycki's narrative, it was this disappointing experience that provoked an intensification of Polish scientists' efforts. By 1925, they had accomplished the foundation of the Institute for Scientific Organization in Warsaw. This initiative by the Polish government in cooperation with Adamiecki and others was explicitly tied to the congress in Prague, where a delegation of the Ministry of Work and Societal Welfare had been present,[32] emulating the examples already existing in Prague and the United States. The project was backed by a developing network of Polish scientists and technicians. The resolution to found the institute was accepted in 1924 under the protection of the government in the hall of the Association of Technicians, where 'four hundred representatives of different societal and governmental spheres' approved it.[33]

In addition to the development of this institution and his didactic efforts at the Politechnicum in Warsaw, in the last years of his life Adamiecki enhanced the role of Poland in the international movement of scientific management and developed an intense effort to publicize and popularize his ideas.[34] In his writings, Adamiecki sketched visionary outlooks – for example in a speech he gave in 1923 at the conference of engineers and mechanics in Warsaw, published in 1923 in *Przegląd Techniczny*, a leading Polish periodical, in which he conceived the 'Societal Meaning of the Work of an Engineer in Industry'.[35] With the help of the new science of organization, the technician would become a manager, working for the 'benefit of the whole people'.[36]

If the conference in Prague was dominated by foreign, American concepts, Adamiecki was seen by many Polish scientists and experts as one of the European academics to show the country a new direction, especially in what he called the 'scientific organization of work'. This science was to be implemented as soon as possible: Adamiecki spent some time in the then Polish region Silesia to promote the scientific organization of the mining

[31] TADEUSZ DZIEDUSZYCKI, U Podstaw usprawienia pracy i państwowości naszej, Toruń 1925, p. 142 (author's translation).

[32] Ibid., p. 143.

[33] Ibid. (author's translation).

[34] KAROL ADAMIECKI, O nauce organizacji. Wybór pism, ed. by ZBIGNIEW HEIDRICH, Warszawa 1970, p. 16.

[35] KAROL ADAMIECKI, Znaczenie społeczne pracy inżyniera w Przemyśle, in: Przegląd Techniczny 41, 42, 43, 44 (1923), as cited in: ADAMIECKI, O nauce organizacji, p. 107-139, p. 109.

[36] Ibid., p. 139 (author's translation).

industry, at places such as Huta Pokój (Friedenshütte).[37] On the other hand, he participated at congresses on scientific organization not only in Prague in 1924, but also in Rome in 1927 and in Paris in 1929, where his concepts were well received, especially his idea of the harmonization of work. In 1929, he became vice-president of the International Committee of Scientific Management in Geneva[38] – a position in which, as can be assumed, he strove to adequately represent the position of Polish science in the transnational context.

3. Dzieduszycki's Mimicry of Ford: The Adaptation of American 'Solidary Imperialism'

Not only adaptations of Taylorism had an echo in Poland, technocracy itself was embraced as well. Tadeusz Dzieduszycki (1896-1976), who came from an old noble family whose members had played an important role in politics and natural sciences in Galicia under Habsburg reign and in the renewed Republic – one of his first publications was on the *Kresy* and Ukraine,[39] i.e. on territories Poland had just been waging war for – conceived a quite extreme version of technocracy to regulate the economy. Wishing not to lose political independence (or territory) again, he advocated that Poland had to succeed in international economic competition. He saw the remedy for improving Poland's situation in the mobilization of all of society's energy and in the directing of this energy towards the most efficient usage in production.[40] It has been argued that although Dzieduszycki worked with technocratic concepts, he did not accept the term technocracy. As a matter of fact, he simply rejected the version of technocracy concentrating exclusively on engineers, which, in his view, overestimated rational action and underestimated irrationalism. However, his concepts were based on technocratic elements such as the idea of total governance by a meritocracy, elitism, the exuberant belief in the power of science and the control of social processes by scientists.[41] At the time, numerous political publicists from the entire political spectrum were more-

[37] KAROL ADAMIECKI, Postępy w zastosowaniu metod naukowej organizacji w Zagłębiu Dąbrowskim i Katowickim, in: Przegląd Techniczny 6 (1926), as cited in: ADAMIECKI, O nauce organizacji, p. 205-215.

[38] ORŁOWSKI, Adamiecki, p. 13-14; WOJDAK, Sylwetki.

[39] [TADEUSZ DZIEDUSZYCKI], Nasze kresy i Ukraina. Kilka myśli o wojskowo-gospodarczem zabezpieczeniu się, [Warszawa 1921].

[40] MICH, Tadeusza Dzieduszyckiego utopia, p. 59.

[41] Ibid.

over influenced by fascist conceptions. Dzieduszycki's stance most closely converged with that of the conservatives, and less so with that of the nationalists (*narodowcy*) or the *Sanacja*, the political faction supporting Józef Piłsudski.[42] All in all, however, 'Polish political and juridical thinking in the years from 1922 to 1939' was quite interested in Mussolini and 'distinguished itself through its thoroughness in defining the phenomenon of Italian Fascism and its forms'.[43]

Dzieduszycki's visions developed in this context and concerned society and the state as a whole. This is vividly illustrated in his book, *At the Foundations of the Improvement of our Work and Statehood*, which is based among other things on the idea of scientific management as embraced and developed by Adamiecki. According to Dzieduszycki,

> '[the] further development of the economy and global civilization is the consequence of this amazing cultural movement under the collective name scientific management. […] This process has gone beyond the spheres of technical-economic problems, and reaches today deeply into the heart of societal life and promotes in our eyes also a violent evolution of international relations'.[44]

In 1924, he wrote in the monthly *Ameryka – Polska* about 'socio-technics' (*socjo-technika*) [*sic*] and 'positive politicians' as 'sociotechnicians' (*socjo-technicy*) [*sic*], as a remedy for the 'violent criticism' of parliamentarianism.[45] His engagement to establish the Institute for the Scientific Organization of Work and Societal Life has already been mentioned.[46] Citing American, Czech and Russian examples, Dzieduszycki concluded in 1925, a '"dictatorship of the intellect" is the only way to overcome the virulent […] "esprit de corps" of specific party- and economic groups'.[47]

To realize such a dictatorship, he helped promote the foundation of an Institute for Scientific Economic and Societal Mediation (*Instytucja Naukowego Pośrednictwa Gospodarczego i Społecznego*).[48] The Polish Confederation of Intellectual Workers propagated this project with the aim

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[42] MARSZAŁ, Włoski faszyszm, p. 324.

[43] Ibid. (author's translation).

[44] DZIEDUSZYCKI, U Podstaw usprawienia pracy, p. 35 (author's translation).

[45] Ibid., p. 58, 60.

[46] Ibid., p. 146.

[47] Ibid., p. 127.

[48] JOANNA KURCZEWSKA, Przeszłość, przyszłość i technokraci (Analiza kategorii czasu w ideologii technokratycznej), in: Archiwum historii filozofii i mysli społecznej 32 (1987), p. 199-237, p. 226; MICH, Tadeusza Dzieduszyckiego utopia, p. 61. JOANNA KURCZEWSKA, Technokrata i polityka, in: Archiwum historii filozofii i mysli społecznej 34 (1989), p. 57-70.

to institutionalize a '"third power" of society, i.e. an organized elite of the people', as Dzieduszycki wrote.[49] On 5 March 1926, seven professors from the University of Lvov[50], supported by thirty-seven professors of the universities of Krakow, Vilnius (Polish: Wilno), Poznań, Lublin and Warsaw, asked the president of the Polish Academy of Arts in Krakow in a 'plebiscite' signed by the marshals of both the Sejm and the Senate, to agree to the foundation of such an institution in the form of a Polish Academy of Work 'for the systematic and exclusively objective analysis of the current national defeat', having in mind specifically the 'American, Czech, Italian etc.' examples.[51] The second organizing conference in this matter, convened by the Academy of Arts, could not take place, however, because of Marshal Piłsudski's coup in May of 1926.[52]

In a book published in 1927, *The Theory of the Fascist Movement and the Syndicalist Corporationist State*,[53] Dzieduszycki sketched a global geographic mind map of his endeavours, propagating a 'solidary imperialism' (as he called American Fordism) that should encompass the whole world:

> 'The Puritan habitus of the Yankees, giving us various charitable missions, supplies and loans, is the avant-garde of an imperialism, that is, of all [versions of imperialism, S.R.] known to date, the closest to the Christian ideal of the "peace of God" on earth. This is *solidary imperialism* [*sic*], or the development of the principle of "interdependence", the expansion of the ideology of *Ford*, possibly around the whole world. *Ford* restricts the unproductive bureaucracy, gives rise to the wish of cultural necessities, of the dollar, of comfortableness, the understanding of the logic of business with solidary creativity among the broad masses etc., or works in the spirit of the solidary expansion (of scientific management).'[54]

'[M]ilitaristic-political competition' should, according to this logic, be substituted with 'cultural-economical competition' – this was the reason why, in his view, the United States did not participate at Versailles in the

[49] TADEUSZ DZIEDUSZYCKI, O teorję nowoczesnej sprawnej państwowości (Hoovera – Mussoliniego – Piłsudskiego). Problem państwowej władzy czwartej (obok zreformowania trzech moteskjuszowych) i społecznej siły trzeciej (względem pracy i kapitału), Warszawa 1928, p. 8.

[50] Polish: Lwów, Ukrainian: L'viv.

[51] DZIEDUSZYCKI, O teorję nowoczesnej, p. 11-12 (author's translation).

[52] Ibid., p. 13.

[53] TADEUSZ DZIEDUSZYCKI, Teorja ruchu faszystowskiego i państwa syndykalistycznego korporacyjnego, Warszawa 1927. Cf. MARSZAŁ, Włoski faszyszm, p. 243.

[54] DZIEDUSZYCKI, Teorja ruchu, p. 161 (author's translation).

'division of colonial German "mandates"'.[55] In this discursive strategy, Fordism turns into an anticolonial version of a modern, 'solidary' form of 'imperialism'.

Dzieduszycki further wrote about the 'mimicry' of Fordism as a tactic allegedly pursued by the Italian Fascists, which, according to him, should be considered by Poland as well:

> 'Both the inevitable finality of the economic integration of Europe, in which we want to avoid the Berlin model, as well as the question of expansion to the East – where we, too, have, in competition to the Prussian model, to relate ourselves architecturally to the American style of societal and intersocietal constructions – compel to take a closer look at the huge advantages Italy assures for itself by these "mimicries" (*takie "mimicri"* [*sic*]) in domestic as well as in international politics.'[56]

Thus appreciating Mussolini's attempts to establish himself as a statesman in Albania, Libya and Locarno, as well as in Italy itself, Dzieduszycki concludes, '*Taylor*, *Ford*, *Hoover* in America, and MUSSOLINI in Europe are the BEGINNINGS of an awakening INTELLECTUAL-FEUDAL ERA [*sic*]' that should become the '[p]ioneer of the RENAISSANCE OF HELLENIC EUROPE [capitalized in the original, S. R.]'. Against the Bolsheviks, he formulates the motto: 'Intellectuals of all states, enterprises and countries, unite. Hail to the dictatorship of the common sense of all classes of the people!'[57] Indeed, Lenin and Stalin were Dzieduszycki's main enemies: The version of the 'modern engineer-organizer' and the elements of 'scientific organization' he observed as used by the Bolsheviks where without exemption negative, although the transfer of these ideas was – purportedly – influenced by the Fascists.[58]

Due to a lack of an 'active intelligentsia', the 'organizing models imported from the best examples of the West become […] like caricatures'.[59] The Soviet versions of scientific organization hence evoked Dzieduszycki's repeated criticism. His own sketch of technocracy, derived from American and Italian examples, can thus be regarded as an answer to this challenge, too.

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[55] Ibid., p. 161-162 (author's translation).

[56] Ibid., p. 162 (author's translation).

[57] Ibid., p. 167.

[58] Ibid., p. 103-106.

[59] Ibid., p. 90.

In the same book, he defined *socjotechnika* as well as 'scientific organization' as synonyms for the term *psychotechnika*[60] – thus connecting his conception with psycho-technics, a cipher for another conception of Taylorism, i. e. scientific management, developed in Germany and in England, and characteristic of the scientific discursive practices of the interwar period in the Soviet Union as well.[61]

After the mobilization of associations such as the academy and parliament had proven to be insufficient – not least of all because of Piłsudski's coup – Dzieduszycki disseminated information about the project by contacting opinion makers, active and former top-rank politicians, engineers, professors and leading journalists, trying to launch a media campaign in newspapers and journals. Dzieduszycki, 'as an old ardent sympathizer of the independent ambitions',[62] thus tried to support the wish of the Academy of Arts and the Confederation of Intellectual Workers to found an Academy of Work by sending an inquiry to 'twenty leading minds of different spheres of knowledge and societal confidence'[63] as a 'supplement to this wish of the obvious heads of Polish science and "neutral" cultural activity'.[64] This initiative at least led to a somewhat intensified, controversial public debate in the new republic. Articles responding to his inquiry appeared in the newspapers and journals *Dzień Polski*, *Robotnik*, *Epoka*, *Przełom*, *Wiadomości Literackie* and *Ruch Prawniczy*.[65] Obviously, besides *Robotnik*, Dzieduszycki characterized these journals as 'supporting the reformist ambitions of the government'.[66] *Epoka* and *Przełom* played an outstanding role in discussing and propagating fascist ideas at this time, while *Robotnik* was an important platform for leftist critique of fascism.[67] I will quote only a few of the responses from these alleged 'leading minds': Władysław Grabski, former prime minister and president of the Warsaw

[60] Ibid., p. 109; cf. DZIEDUSZYCKI, U Podstaw usprawienia pracy, p. 41-42.

[61] TORSTEN RÜTING, Pavlov und der Neue Mensch. Diskurse über Disziplinierung in Sowjetrussland, München 2002, p. 196-197; SABINE MECK, Das Verhältnis von Arbeit und Körperkultur in der Sowjetunion. Versuch einer theoretischen Standortbestimmung, Frankfurt am Main 1986, p. 30-35; MARGARETE VÖHRINGER, Avantgarde und Psychotechnik. Wissenschaft, Kunst und Technik der Wahrnehmungsexperimente in der frühen Sowjetunion, Göttingen 2007; KURT JOHANSSON, Aleksej Gastev. Proletarian Bard of the Machine Age, Stockholm 1983.

[62] DZIEDUSZYCKI, O teorję nowoczesnej, p. 10 (author's translation).

[63] Ibid. (author's translation).

[64] Ibid., p. 13 (author's translation).

[65] Ibid., p. 27-40.

[66] Ibid., p. 27 (author's translation).

[67] Cf. the bibliography in MARSZAŁ, Włoski faszyszm, p. 326-367.

Economic Association, answered on 14 June 1928, stating that he supported Dzieduszycki in his ambition to make the intelligentsia a 'fourth power' in the state, 'directing and deciding' as an 'organized state adviser', following the examples of the 'West'.[68] The president of the Economic Society of Lvov, Professor Leopold Caro (1864–1939), as well as Professor Stefan Biedrzycki (1876–1936), 'one of the official pioneers of "Scientific Management"',[69] also supported Dzieduszycki's letter. The latter wrote on 19 June 1928:

> 'Worthy of support is especially the idea of a Polish Academy that would have the aim to improve all forms of national production, unifying the now countercurring efforts of different existing economic councils, poll commissions, the Institute of Scientific Management etc. Respecting in the construction of such an Academy the analogous experiences and aims of especially Hoover, Masaryk and Mussolini, this would bring us to the front line of development of the most intensively working societies of today.'[70]

Among the supporters were also the 'former minister of justice' (who held this position after Piłsudski's coup in 1926) Professor Wacław Makowski and Dr Mieczysław Szawleski, the then head of the Office of Economics of the Bank of Poland.[71] Szawleski analysed on 1 February 1928: '"Classless" America relies on tests of intelligence […]. *Fascism explicitly declares the dictatorship of intelligence* [italics in the original, S.R.]. Bolshevism has actually […] handed over the state administration to the intelligence of the disciplines (*specy*).'[72] However, he did not see a good position for Poland in this international situation of competition, but perceived rather a menace by the U.S.S.R. and Germany: '[O]ne cannot be of the opinion that, in relation to our neighbours, time is still working for us.'[73]

Of course there were critical voices as well. The journalist Kazimierz Czapiński criticized Dzieduszycki's project in the worker's newspaper *Robotnik* with a pejorative neologism as a fascist *technarchia*.[74] Indeed, in a version of his project published in 1928, Dzieduszycki without restraint lumped together concepts of Hoover, Mussolini and Masaryk and thus

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[68] DZIEDUSZYCKI, O teorję nowoczesnej, p. 14.

[69] Ibid., p. 13-15 (author's translation).

[70] Ibid., p. 14 (author's translation).

[71] Ibid., p. 20-23.

[72] Ibid., p. 23 (author's translation).

[73] Ibid. (author's translation).

[74] KAZIMIERZ CZAPIŃSKI, 2 July 1928, Robotnik, as quoted in DZIEDUSZYCKI, O teorję nowoczesnej, p. 30-32.

conceived a 'new man in public life'[75]: He documented this project in 1928 in a book entitled *On the Theory of Modern Organized Statehood (Hoover – Mussolini – Piłsudski)*. Here, Dzieduszycki again contextualized his endeavours in relation to Soviet Russia: He differentiated between '"[s]chools" of systematic enhancement of blind Chauvinism, be they national-imperialistic (Schopenhauer, Nietsche [*sic*], Hegel, Bismark [*sic*], slavophile etc.) or class-imperialistic (and pan-Semitic) beginning with Marx, then Lenin, Trocki [*sic*] and ending with belligerent Zionism'.[76] Dzieduszycki's ideas found – albeit neither overwhelming nor sustained – support in leading intellectual, political and societal circles.

At the end of 1930, he became the sole secretary of a committee for the preparation of a Polish Academy of Work under the leadership of Professor Stefan Biedrzycki, then rector of the Main School of Agronomy in Warsaw. Among the eleven high-profile members (six professors, leading persons of economic institutions) was Wacław Makowski, then head of the constitutional commission of the Sejm[77] as a member of the Nonparty Bloc for the Collaboration with Government (BBWR). When Piłsudski vacated his position as vice-marshal of the Sejm, Makowski was elected to this honour on 1 October 1931.[78] As secretary of this institutionalized network, Dzieduszycki published the book *Committee for the Preparation of a Polish Academy of Work*[79] in 1931, promoting this project. It appeared as the first volume of the series *Materials*, published with support of the Ministry of State-owned Banks. Under the motto 'Ex Occidente Lux', he defined 'Rational Organization' as a 'Criterion of Civilization and the Way to Welfare'. He then sketched analogous institutions in leading countries (in the following order: United States, Germany, United Kingdom, British Dominions and Japan, France, Czechoslovakia) that had inspired the members of the committee – in a transnational way – to found a similar organization in Poland.[80]

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[75] DZIEDUSZYCKI, O teorję nowoczesnej, p. 31, 74. On the fascist 'New Man' in Europe between the wars: L'homme nouveau dans l'Europe fasciste (1922–1945). Entre dictature et totalitarisme, ed. by MARIE-ANNE MATARD-BONUCCI, Paris 2004.

[76] DZIEDUSZYCKI, O teorję nowoczesnej, p. 52.

[77] TADEUSZ DZIEDUSZYCKI, Sociotechnicum Polonorum. Scientia pura cum arte vitaque conjugenda, czyli Polska Akademja Pracy Racjonalnej. Precedensy zagraniczne i projekt organizacji, Warszawa 1931, p. 14-15.

[78] A short biography of Makowski is available on the website of the Sejm: Wacław Makowski (1880–1942), http://edukacja.sejm.gov.pl/historia-sejmu/marszalkowie-sejmu/iirzeczypospolita.html, accessed 26 February 2009.

[79] DZIEDUSZYCKI, Sociotechnicum Polonorum.

[80] Ibid., p. 7-8.

However, despite the fact that Dzieduszycki had some influence on the neoconservative political publicists of the journal *Bunt Młodych* (Revolt of the Young), where Jerzy Giedroyc and Aleksander Bocheński published,[81] his project apparently remained on paper: Dzieduszycki's ideas were unpopular among conservatives, as he conceived a 'dictatorship ruled by specialists of different technologies' without respecting political representation of 'organic society and the opinions of [its] entities'.[82] According to a political project based on the 'Ideology of Scientific Management', conceived in 1931 by Eustachy Sapieha,[83] Tadeusz Dzieduszycki and Władysław Gizbert Studnicki, twenty per cent of the senate should consist of 'experts in special spheres of administration' appointed by the president.[84] Moreover, technological progress or *maszynizacja* itself was criticized.[85]

4. Polish Colonialism as Postcolonial Technocratic Utopia?

Let us now return to 'solidary imperialism'. As noted above, Dzieduszycki himself wrote in 1927 about 'mimicry' as a tactic employed by Italian Fascists. Thus, his call for Polish 'solidary imperialism' might be analysed in a postcolonial context: Comparable to Wilhelmine Germany[86] or Italy after 1890,[87] who tried rather belatedly to look for 'a place in the sun' or colonies in Africa, there where even more belated compensatory discourses in interwar Poland, situating the country in a position of global competition between colonial empires – a challenge that was to be met by the adaptation, emulation or mimicry of the discursive strategies of these global actors.

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[81] MICH, Tadeusza Dzieduszyckiego utopia, p. 60. Cf. JANUSZ LEWANDOWSKI, Neoliberałowie wobec współczesności, Gdynia 1991, p. 154-156; WŁODZIMIERZ MICH, Między integryzmem a liberalizmem. Polscy konserwatyscy wobec kapitalizmu, Lublin 1996, p. 18, 50, 248-253; MARCIN KRÓL, Style politycznego myślenia wokól 'Buntu Młodych' i 'Polityki', Paris 1979.

[82] BOGDAN SZLACHTA, Polscy konserwatyści wobec ustroju politycznego do 1939 roku, Kraków 2000, p. 217 (author's translation).

[83] Sapieha had been minister of foreign affairs in 1920, proposed Piłsudski's idea of a union with Lithuania in Bruxelles in 1921 and was a member of the BBWR supporting Piłsudski in 1930.

[84] SZLACHTA, Polscy konserwatyści, p. 299-301.

[85] MICH, Między integryzmem a liberalizmem, p. 55, 79.

[86] JOACHIM ZELLER, Das Deutsche Reich. Der Nachzügler, in: Ein Platz an der Sonne, p. 238-253.

[87] IRMA TADDIA, Italien. Das letzte Imperium, in: Ein Platz an der Sonne, p. 254-277.

Leopold Caro, an early supporter of Dzieduszycki, wrote in 1930 about the *Essence of Solidarism*, also citing Ford and Mussolini.[88] As a pioneer of Catholic solidarism, he became vice-president of the Societal Council of the Polish Primas in 1932.[89] President Ignacy Mościcki along with the Polish Primas Cardinal August Hlond and Marshal Edward Śmigły-Rydz became sponsors of the 'Week of the Sea' in 1937, which had been proclaimed by the Maritime and Colonial League as a climax of its publicistic success in interwar Poland.[90] Poland's belated wish for colonies can be interpreted from a postcolonial perspective as a form of mimicry with a touch of mockery (which is characteristic of postcolonial mimicry)[91] without serious hope for realization.

The same can be said about *Polska Idea Imperialna* (The Imperial Polish Idea), published in 1938 with a foreword by Jerzy Giedroyc, a leading conservative publicist, by the journalists and supporters of *Bunt Młodych*[92] – with which Dzieduszycki, apparently, had been connected. Today, the project is considered 'publicistic maculature' 'already in the moment of publication'.[93] In the chapter 'colonies', the publishers were at least realistic enough to judge the Polish 'wish for colonies' for the time being only as a 'prestigious postulate'.[94] Nevertheless, they considered 'the current colonial campaign as useful to prepare a base for our future necessities in time; when we will have developed ourselves better, we will be able to attempt an expansion of capital on foreign territories'.[95] The publication supported Piłsudski's *Sanacja* – with some adjustments[96] – as well as

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[88] LEOPOLD CARO, Istota solidaryzmu, in: Przegląd Powszechny 186/5 (1930), no. 557, p. 149-161.

[89] www.polonica.net/Istota_solidaryzmu.thm, accessed 1 March 2009. Cf. JAROSŁAW MACAŁA, Polska katolicka w myśli politycznej II RP, Glogów 2004, p. 34, 252 et al.

[90] TARAS HUNCZAK, Polish Colonial Ambitions in the Inter-War Period, in: Slavic Review 26/4 (1967), p. 648-656, p. 651-652; GRAŻYNA BORKOWSKA, Polskie doświadzenie kolonialne, in: Teksty drugie 4 (2007), p. 15-24; ZBIGNIEW BUJKIEWICZ, Aspiracje kolonialne w polityce zagranicznej Polski, Zielona Góra 1998.

[91] ASHCROFT, GRIFFITHS, TIFFIN, Post-Colonial Studies, p. 139-142.

[92] Polska idea imperialna, ed. by Zespół 'Polityki', Warszawa 1938; SZLACHTA, Polscy konserwatyści, p. 36, 38.

[93] A. STANISŁAW KOWALCZYK, Kult państwa. Program polityczny środkowiska 'Polityki' Jerzego Giedroycia z roku 1938, in: For East is East. Liber Amicorum Wojciech Skalmowski, ed. by WOJCIECH SKALMOWSKI/ TATJANA SOLDATJENKOVA/ EMMANUEL WAEGEMANS, Leuven 2003, p. 75-86, p. 76 (author's translation); KRÓL, Style politycznego myślenia, p. 24-29.

[94] Polska idea imperialna, p. 70.

[95] Ibid., p. 70 (author's translation).

[96] Ibid., p. 77.

his conception of Polish nationhood, although, in contrast to him and apparently also to Dzieduszycki, who avoided writing about Jewish Poles in his publications, without a benevolent stance towards Jews:[97] '[W]e have to force the Jews into mass emigration by ruthless economic pressure.'[98] The economic programme of *Bunt Młodych* adopted not only an imperial discourse, but technocratic elements as well: 'With the aim of coordination and improvement' of the economy, a 'Ministry of National Economics' should be established, so that '[e]conomic life becomes an organic whole.' An 'economic committee' 'composed of first-rate experts (*fachowcy*)' should assist the ministry. Several 'offices of economy' should help and 'give programmatory character' to the different state-owned enterprises. They should convey 'advice obtained among experts (*rzeczoznawcy*) beyond the state administration'. Corporatist elements where also approved of: 'We see the cooperative movement as one of the most able forms of collective economic action to lead as an evolution to the realization of a healthy corporative constitution'.[99] Honouring Piłsudski, the 'dictatorial' elements of his actions were condoned – to let 'grow the great tree of the newborn Polish nationalism, capable of building the new Polish Empire'.[100] Yet, in another passage, they favoured parliamentarism to adopt 'the benefits of corporatist constitution' without the state turning 'authoritarian'.[101] The authors wanted to establish a political group parallel to Piłsudski's BBWR after the next elections, but the war prohibited this. In any case, their programme 'had nothing new to propose'[102] to the public – all of these ideas were already widespread in conservative Polish political discourse. Even if the publication was not important, then, it was representative of the contemporary political discourse.

Read in this context, Dzieduszycki's publications were not totally extraordinary, albeit extravagant: In 1939, he criticized Nazi Germany's concentration camps as well as Hitler's youth movement and projected an axis Warsaw-London-Washington as '*urbs aeterna*' to defend the '*pax supra romana*' and 'Jagiellonian Poland' against Moscovitians, 'Germanized' Czechs and 'Italo-Turkish-Slavic' Southern Slavs as allies of Hitler. Thus, Dzieduszycki did not adapt National Socialist models, al-

[97] Ibid., p. 81-82; ULRICH SCHMID/ SABINA SCHAFFNER/ ISABELLE VONLANTHEN, Die Ästhetik des nationalistischen Diskurses in Polen (1926–1939), forthcoming 2010.

[98] Polska idea imperialna, p. 70 (author's translation). More discriminatory details on p. 46-47.

[99] Ibid., p. 71-73 (author's translation).

[100] Ibid., p. 15.

[101] Ibid., p. 73.

[102] KOWALCZYK, Kult państwa, p. 86.

though some might have been as well adaptable as Mussolini's – another hint at the importance of situative political frames in Dzieduszycki's conceptions. This book, written and then confiscated by the censors shortly before the German and Soviet assaults on Poland in 1939, already in its title[103] once more exemplified the wish of a visionary Polish academic to formulate an increasingly desperate ideological answer to the mortifying challenges his resurrected fatherland faced in these years by its former colonial rulers. Like his earlier 'technocratic utopia',[104] Dzieduszycki's text, written in 1939, had the aim of securing and legitimizing a peculiar Polish project of modernity in the context of the multiple modernities competing for existence: He advocated the foundation of a national 'brain' following the examples of the British Privy Council, the Great Council of Fascists and the Soviet GOSPLAN. A renewed Polish 'intellectual imperialism' should fight German 'materialist imperialism' as a federation of Slavic peoples and their neighbours – led by Poland. This imperial project was a transnational and technocratic template, too: The 'Jagiellonian Empire' should, together with the U.K. and the U.S.A., 'flood' the Soviet Union with scientists as well as machines.[105]

It is imperative to read these texts as written in a multiple postcolonial situation – in opposition to the binary dichotomic relationship between one dominator and one victim – as a subversive mimicry of neocolonial 'euphoric dreams'.[106] They were written by a member of a former colonial power colonized by its neighbours already at the end of the eighteenth century: Dzieduszycki's rhetoric was a proactive '*Unterdrückungsabwehr*'[107] or 'strategic mimicry'[108] of sorts to delegitimize ongoing claims of domination over Poland, expressed for example by Germany in its

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[103] TADEUSZ DZIEDUSZYCKI, Ruch Jagielloński Młodych i Duchem Młodych. Wielki zryw narodu z nizin 300 lat upadku i z barłogu przydługiej rekonwalescencji. Nowy Grunwald. Szalonym rozmachem twórczego ducha polskiego na miarę 500 lat bezprzykładną, przezwyciężymy i unicestwimy niszczycielskie szaleństwo teutońskie grożące zblokowaniem się z Moskwą na naszym grobie, Warszawa 1939, p. 15-19, as quoted in WŁODZIMIERZ BORODZIEJ/ BŁAŻEJ BRZOSTEK/ MACIEJ GÓRNY, Polnische Europa-Pläne des 19. und 20. Jahrhunderts, in: Option Europa. Deutsche, polnische und ungarische Europapläne des 19. und 20. Jarhunderts, vol. 1, Essays, ed. by WŁODZIMIERZ BORODZIEJ et al., Göttingen 2005, p. 43-134, p. 97-98.

[104] See the title of Mich's book: Tadeusza Dzieduszyckiego utopia.

[105] DZIEDUSZYCKI, Ruch Jagielloński, as quoted in BORODZIEJ et al., vol. 2, Regesten, no. 259, p. 508-510, p. 509-510.

[106] PAUL N. HEHN, A Low Dishonest Decade. The Great Powers, Eastern Europe, and the Economic Origins of World War II, 1930–1941, New York 2002, p. 118-119.

[107] UFFELMANN, 'Ich würde meine Nation als lebendiges Lied erschaffen', p. 92.

[108] Ibid., p. 98.

conception of *Lebensraum* or in its derisive rhetoric of Poland as a 'seasonal state' (*Saisonstaat*).[109]

5. Conclusion

In the framework of the Second Republic, Polish experts – scientists and technicians – developed the wish and the ability to struggle for the enhancement of their institutions and their influence on societal affairs. These deliberations and projects stood in a very close relationship to the earlier American and Czech examples. Indeed, the experience of seeing Czechoslovakia become more successful in this realm than Poland was one of the transnational motivations to move ahead more quickly – even if the Czech phenomenon turned out to have been quite short-lived. Polish scientists and technicians organized themselves in new or renamed older associations, wrote in new and established journals and newspapers, and enjoyed at times the support of the government. Yet, Polish governments apparently did not develop the willingness to act in a comparably decisive manner until the mid 1920s – and with Piłsudski's coup, the possibilities for influence again changed.

Looking at the examples mentioned here, a transfer of knowledge or concepts can be observed rather from the United States via Czechoslovakia to Poland than from Western Europe to the eastern part of Central Europe – with the exception of the influence of corporatism as conceived by Mussolini.

As remarkable, then, may be underlined the role of experts of the 'older generation': Adamiecki, like Hauswald, had been educated long before the founding of the new republics. In their eyes, their actions were, perhaps, simply a continuation or the culmination of Czech or Polish intellectual brilliance in the new Atlantic context, rather than the beginnings of a new Europe. When Adamiecki became a leading representative of the International Committee of Scientific Management in Geneva, the global context was probably more important than the European one. On the other hand, Dzieduszycki certainly belonged to a young generation desiring a new Europe (he participated as an observer at the first Paneuropa Congress in Vienna in 1926[110]), but at the same time he was the child of an old noble tradition, living on old economic and political symbolic capital.

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[109] HEHN, A Low Dishonest Decade, p. 66.

[110] STEPHANIE ZLOCH, Blick nach Westen? Polen und die europäischen Einigungsbestrebungen zwischen den beiden Weltkriegen (1918–1939), in: Vision Europa. Deutsche und polnische Föderationspläne des 19. und frühen 20. Jahrhunderts, ed. by HEINZ DUCHHARDT/ MAŁGORZATA MORAWIEC, Mainz 2003, p. 65-84, p. 76.

Compared to ambitious projects like PIMCO in Prague, or Dzieduszycki's even less successful endeavours to found a similar Academy of Work in Poland, the main function of his surreal 'counter-imperialist' project of 1939 could be summed up from a postcolonial perspective as the mimicry of the ideologies of Poland's menacing neighbours, i.e. the self-confident notion linked to its desperate expression in the sense of 'signifying nation'.

As a final point, one might stress the obvious, namely that, as Dzieduszycki's concepts and his explicit adaption of fascist elements have illustrated, at the time the euphoric propagation of technical and societal progress was closely linked – and not only in Poland – to illiberal conceptions of modernity.[111]

[111] SHMUEL N. EISENSTADT, Multiple Modernities, p. 12.

ELISABETH VAN MEER

'THE NATION IS TECHNOLOGICAL'

TECHNICAL EXPERTISE AND NATIONAL COMPETITION IN THE BOHEMIAN LANDS, 1800–1914*

In 1891, a teenager by the name of Vladimír List (1877–1971) visited the Provincial Jubilee Exhibition in Prague. The exhibition was organized to showcase the latest 'Bohemian'[1] accomplishments, in celebration of a century of progress since the first industrial exhibition held in Prague in 1791.[2] Strolling along the fair grounds, visitors like List could encounter displays from agricultural, sugar and paper manufacturers, and the more recently established mechanical and electrical works.[3] The electrical company of František Křižík in particular bedazzled visitors with a waterfall that lit up in multicolour. Křižík had also installed the first electric tram track in Prague (which connected Letná to the exhibition grounds).[4] The young List was impressed by this modern spectacle, as were many among the millions of visitors attending the Jubilee that year.[5]

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[1] I will use the term 'Bohemian Lands' (*České země* in Czech, *Böhmen* in German) to designate the historic territories of Bohemia, Moravia and Austrian Silesia.

[2] CATHERINE ALBRECHT, Pride in Production. The Jubilee Exhibition of 1891 and Economic Competition between Czechs and Germans in Bohemia, in: Austrian History Yearbook 14 (1993), p. 101-118, p. 102.

[3] OTTO SMRČEK, Pražské výstavy v letech 1877–1898 a strojírenství, in: Dějiny věd a techniky 24 (1991), p. 91-101, p. 95-98; ALBRECHT, Pride in Production, p. 114.

[4] Ibid., p. 113; SMRČEK, Pražské výstavy, p. 98.

[5] SMRČEK, Pražské výstavy, p. 94 notes the exhibition drew close to two and a half million visitors; ALBRECHT, Pride in Production, p. 102 cites similar reactions from visitors. And even Emperor Franz Joseph 'clearly found the exhition's industrial and commer-

In interwar Czechoslovakia, List would become a prominent professor of electrical engineering. Looking back at the 1891 exhibition in his memoirs, the event had become linked both to a budding sense of patriotism and his commitment to technical expertise:

> 'The exhibition showed me the scope of Czech industries and the workmanship of Czech crafts [...] and I was especially interested in the machines that are moved by steam engines, by electricity and other [means] [...]. At that moment I really became a patriot, proud of Czech work, which presented to the world even the marvellous fountain of Křižík.'[6]

By 1895, List, who also spoke German, enrolled in the Czech rather than the German Technical College in Prague. By 1908, he accepted a professorship at the Czech Technical College of Brno.[7] And, as we will see below, he became a leading voice for reforming Austrian and especially Czech technical education.

List's visit to the Provincial Jubilee Exhibition is therefore exemplary for the key questions examined in this article. What did it mean to be a 'technical expert' in nineteenth-century East Central Europe? And how did the imperial context shape the position of technological knowledge and expertise in the new Czechoslovak state after World War I? For engineers in the Bohemian lands like List, these questions were not easy to answer. As part of the Habsburg Empire, the province was home to speakers of German and Czech who, especially before 1848, were often bilingual and nationally indifferent. But by the turn of the century, the question whose industry and technology an engineer ultimately was creating – the Habsburg Empire's, the Bohemian lands', the nation's, and/or the profession's – became a prominent one. Similarly, the question whether the 'state' or the 'nation' actually recognized engineering graduates as technical experts became of key concern.

This article will explore these questions by looking at the writings of Bohemian engineers who published mostly in the Czech language (including monographs, memoirs and articles in the professional journals and the intellectual magazines of the time). We will see that as the century progressed, and as Bohemia industrialized at an impressive rate, technological

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cial displays fascinating'. HUGH LECAINE AGNEW, The Flyspecks on Palivec's Portrait. Francis Joseph, the Symbols of Monarchy, and Czech Popular Loyalty, in: The Limits of Loyalty. Imperial Symbols, Popular Alliances, and State Patriotism in the Late Habsburg Monarchy, ed. by LAURENCE COLE/ DANIEL UNOWSKY, New York 2007, p. 86-112, p. 99.

[6] VLADIMÍR LIST, Paměti, Ostrava 1992, p. 26-27 (author's translation).

[7] Český biografický slovník XX. století, ed. by JOSEF TOMEŠ et al., vol. 2, K-P, Praha 1999, p. 279.

expertise became increasingly caught in national terms. By the early twentieth century, a trio of young Czech engineers adopted the position that technology stood at the core of a 'modernizing nation'. At the same time, they complained that their profession was not recognized as having expert status over that nation. In an effort to boost their expert status, this trio then appropriated American scientific management ideology. Perhaps counter-intuitively, this paper also finds that imperial Germany remained a key source for technical reform movements throughout the nineteenth and early twentieth century.

1. Before Engineering was National: Technical Expertise in the Bohemian Lands, 1717–1848

From the eighteenth century until the liberal national revolutions of 1848, technical expertise in the Bohemian lands was not national, but linked to Bohemian and imperial interests. The Bohemian nobility were among the province's first entrepreneurs. They extended their economic base beyond traditional agriculture in the eighteenth century. Especially after Emperor Joseph II abolished serfdom in 1781, several Bohemian nobles exploited mines and established agricultural industries on their estates, and then, by the nineteenth century, invested their wealth in banks and railroads.[8]

The first engineering schools and scientific societies were thus set up under the auspices of the Bohemian estates as well. As early as 1717, a small engineering college was established in Prague. Students of this Estates College were mostly sons of the nobility and high-ranking officers.[9] Also, the Royal Bohemian Society of Sciences in Prague, established around 1772, promoted the production and diffusion of scientific work. Its earliest members included enlightened nobility, clericals, professors from Charles University and bourgeois scholars.[10]

In 1806, the Bohemian nobility and Emperor Franz I approved the transformation of the Estates College into Prague's Polytechnic Institute. Loosely modelled after the French *École Polytechnique* (1794), the school

[8] EAGLE GLASSHEIM, Between Empire and Nation. The Bohemian Nobility, 1880–1918, in: Constructing Nationalities in East Central Europe, ed. by PIETER M. JUDSON/ MARSHA L. ROZENBLITT, New York 2005, p. 61-88, p. 63.

[9] FRANTIŠEK JÍLEK/ VÁCLAV LOMIČ, Dějiny Českého vysokého učení technického, vol. 2, part 1, Praha 1973, p. 103, p. 144; MAGDALENA TAYLEROVÁ et al., Česká technika/ Czech Technical University, Praha 2002, p. 13, 21, 25.

[10] JOSEF F. ZACEK, The Virtuosi of Bohemia. The Royal Bohemian Society of Sciences, in: East European Quarterly 2 (1968), p. 147-169, p. 150-151.

was to further industrial development as well. Students received a theoretic grounding in geometry, mechanics and advanced mathematics as well as in the practical arts (such as engineering, architecture, technical drawing, shop practice, chemistry and agricultural technology).[11] Vienna gained the empire's second Polytechnic Institute in 1815.[12] Between 1820 and 1848, their graduates helped lay the foundation for the Habsburg Empire's first period of sustained economic growth.[13]

The language of instruction at these institutions was German. Especially since the reign of Emperor Joseph II, German had become the vernacular language designated to serve as the language of state throughout the territories.[14] However, language use was not thought of as linked to nationality. Recent historical research has shown that, especially before 1848, Bohemians were 'linguistically neutral hermaphrodites'.[15] Often, Czech-speaking parents sent their children to neighbouring families in the summertime to learn German and vice versa.[16] Similarly, although the Royal Bohemian Society published most of its work in German or Latin, members on occasion spoke Czech during sessions. Ultimately, the work of the society was committed to the Bohemian Lands.[17]

The concept of a 'fatherland' was therefore initially not a national one either. Bohemian schools did teach history with the purpose of instilling a 'love of fatherland' in children. By the eighteenth century this meant a

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[11] JÍLEK/ LOMIČ, Dějiny, p. 154, 166-169; TAYLEROVÁ et al., Česká technika, p. 35-39.

[12] By the 1840s, there were polytechnics in Prague, Vienna, Graz, Krakow, Lvov (Polish: Lwów, Ukrainian: L'viv, German: Lemberg), Pest, Milan, Venice and Trieste. GARY B. COHEN, Education and Middle-Class Society in Imperial Austria, 1848–1918, West Lafayette 1996, p. 14.

[13] DAVID GOOD, The Economic Rise of the Habsburg Empire, 1750–1914, Berkeley 1984, p. 39-73; RICHARD H. KASTNER, Die Entwicklung von Technik und Industrie in Österreich und die Technische Hochschule in Wien, in: Blätter für Technikgeschichte 27 (1965), p. 1-186; JIŘÍ POKORNÝ, Ingenieure in Böhmen und der Tschechoslowakei, 1890–1939, in: Professionen im modernen Osteuropa, ed. by CHARLES MCCLELLAND/ STEPHAN MERL/ HANNES SIEGRIST, Berlin 1995, p. 367-381, p. 368.

[14] FREDERICK C. GAMST, Introduction to the English Edition. The Long Road to a Terminus in America. The Railroad Engineering Career of Franz Anton von Gerstner, in: Early American Railroads. Franz Anton Ritter von Gerstner's Die Innern Communicationen (1842–1843), ed. by FRANZ ANTON RITTER VON GERSTNER, Stanford 1997, p. 4.

[15] TARA ZAHRA, Kidnapped Souls. National Indifference and the Battle for Children in the Bohemian Lands, 1900–1948, Ithaca 2008, p. 1, 23. For the significance of 1848 as a starting point in the history of national identity formation and competition in Bohemia: JEREMY KING, Budweisers into Czechs and Germans. A local history of Bohemian Politics. 1848–1948, Princeton 2002, p. 22-30.

[16] Ibid.

[17] ZACEK, The Virtuosi of Bohemia, p. 157.

sense of loyalty to the entire monarchy, but could be combined with a love for the province or crown land.[18]

One of the most prominent technical experts in this early nineteenth century, serving both Bohemia and the empire alike, was Franz Joseph Gerstner (1756–1832). It was Gerstner who convinced authorities to establish the Prague Polytechnic. The son of a harness maker in Komotau/Chomutov, Gerstner was admitted to Prague's Charles University and the University of Vienna on the basis of his talents in mathematics and engineering. In 1789, Gerstner was appointed professor of advanced mathematics at Prague University. He soon gained a large student following for combining lectures in theoretical mathematics with practical applications. Gerstner also served as the Polytechnic's first head (1806–32), as professor of engineering (1806–32) and as professor of advanced mathematics (1806–22).[19] He built and tested a steam engine there in 1806–07.[20]

In other words, Gerstner's professional life was guided by the vision that technical expertise stemmed from the combination of theoretic and practical knowledge. He expected his students, and his colleagues, to serve as technical experts promoting Bohemian and imperial industry. His own significance as expert consultant remained unparalleled: 'Almost no great technical issue in Bohemia was decided without [his] advice.'[21] Gerstner worked with various iron works, assisted in the construction of several bridges, headed a Bohemian hydraulics agency and advocated the construction of a railway link between the Danube and Moldau rivers.[22] Recognizing his status as an imperial expert,[23] Emperor Franz I elevated Franz

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[18] ERNST BRUCKMÜLLER, Patriotic and National Myths. National Consciousness and Elementary School Education in Imperial Austria, in: The Limits of Loyalty, p. 11-35, p. 23, 26. Before the eighteenth century, fatherland commonly meant province or crown land – such as Bohemia.

[19] GAMST, Introduction, p. 3-9.

[20] TAYLEROVÁ et al., Česká technika, p. 40.

[21] GAMST, Introduction, p. 7; TAYLEROVÁ et al., Česká technika, p. 40, similarly argue that '[e]ven [Gerstner's] contemporaries viewed him as an exceptional individual – a person who had grasped and understood best the significance of technology and the natural sciences for the needs of the economy'.

[22] TAYLEROVÁ et al., Česká technika, p. 40; GAMST, Introduction, p. 7-8.

[23] Architects who designed the monumental Ringstraße in Vienna may be seen as other examples of imperial experts. Also, Otto Wagner, who gained international fame in the late nineteenth century, sought ultimately to 'achieve an imperial universal style'. Notably, this style was contested by two of his students, Pavel Janák (1882–1956) and Josef Chochol (1880–1956) who, like the younger generation of engineers introduced later in this chapter, identified more as Czechs and 'mounted an opposition to Wagner's imperial rationalism'. FRIEDRICH ACHLEITNER, The Pluralism of Modernity. The Architectonic 'Language Problem' in Central Europe, in: Shaping the Great City. Modern Architecture in Central

Joseph Gerstner into the 'hereditary nobility of the transformed state' in 1810.[24] Gerstner's oldest son, Franz Anton 'Ritter von' Gerstner, subsequently continued in his father's ennobled footsteps. He graduated from the Prague Polytechnic to become a professor of practical geometry at the Vienna Polytechnic. He constructed the first continental (horse-drawn) railway between Linz and České Budějovice (Budweis) that was first proposed by his father.[25] F. Anton von Gerstner was also among the first Bohemians to travel overseas to study American technology.[26]

2. Technical Education and the Nationalization of Engineering in Bohemia, 1848-1914

Emperor Franz Joseph (ruled 1848–1916) was also committed to the development of the Bohemian lands. From the imperial perspective, modernization was needed to keep Austria powerful on the European continent. The rise of Prussia and, after 1871, the unified German Empire, was of concern. Austrian reforms were often modelled after German examples. And from this perspective, Franz Joseph's reforms were a success. They facilitated the 'railroad boom' of the 1860s and 70s.[27] Austrian capitalism ultimately transformed in ways comparable to Germany. By 1914, the Austrian economy was 'scarcely more than a decade' behind its northern neighbour in terms of its scale of industrial concentration.[28]

From a Bohemian perspective, industrialization and educational reforms went hand in hand with new linguistic and, ultimately, national divisions. In 1867, Franz Joseph granted relative autonomy to the Hungarian crown lands in an accord that became known as the *Ausgleich*. Czech Bohemian

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Europe, 1890–1937, ed. by EVE BLAU/ MONIKA PLATZER, Munich 1999, p. 94-106, p. 100-101.

[24] GAMST, Introduction, p. 8.

[25] F. Anton von Gerstner was unable to complete the entire line, however. He faced mounting criticism for 'overbuilding' and ultimately failed to receive sufficient funding. Ibid., p. 12-14.

[26] Von Gerstner left for the United States in 1838. He died in Philadelphia in 1840. His reports were published posthumously, respectively by his wife and an associate: CLARA VON EPPLEN-HÄRTENSTEIN, Beschreibung einer Reise durch die Vereinigten Staaten von Nordamerica in den Jahren 1838 bis 1840, Leipzig 1842; LUDWIG KLEIN, Die inneren Communikationen der Vereinigten Staaten von Nordamerica, Wien 1842–1843.

[27] The period between 1869 and 1873 is known as the *Gründerzeit*. Railroad production stimulated output and technological and organizational changes in mining, iron and steel production, machine works and banking. GOOD, The Economic Rise, p. 164.

[28] Ibid., p. 229.

leaders together with a faction of the Bohemian nobility had been petitioning for a similar recognition of Bohemia's historic crown land rights.[29] Yet, Bohemia's gains in 1867 were limited to those comprised in the Fundamental Laws. These laws, amongst others, gave 'every race' in Cisleithania 'the inviolable right to preserve and cultivate its nationality and language'.[30] Specifically, it gave Czech (and German) speakers in the Bohemian lands the right to receive elementary education in 'the mother tongue' if they constituted a linguistic majority.[31] Although these laws were not intended to link language use and instruction with nationality, in practice this became increasingly the case.

This was true for higher technical education as well. Although the Prague Polytechnic was founded as a Bohemian institution, with German as the language of instruction, by the early 1860s, three professors initiated lectures in Czech as well.[32] In 1863, the Polytechnic initially accepted a new 'organic statute' promising to teach all core courses in both Czech and German.[33] But in the aftermath of the 1867 *Ausgleich* with Hungary, national tensions and resentment in Bohemia significantly increased. In 1869, the Bohemian Diet and Franz Joseph therefore allowed for the Polytechnic to be separated into German and Czech institutions.[34] Other Bohemian institutions of higher education followed. Brno's Technical College in Moravia, established as a polytechnic in 1850, was divided in 1899. Charles University in Prague split up in 1882.[35]

The establishment of separate linguistic educational tracts reinforced the formation of separate professional identities also after graduation. For example, in 1866, the Society of Engineers and Architects in the Bohemian Crown Lands (*Spolek inženýrů a architektů v království Českem* – SIA) was established as a professional Bohemian organization. Its journal was published in both Czech and German editions. But when the Prague Polytech-

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[29] The states rights faction among the nobility was known as the *Feudal-Konservative*. Opposing them were Bohemian nobility who believed in strong centralization from Vienna with German as a universal, imperial, state language. These were the *Verfassungstreue Großgrundbesitzer*. GLASSHEIM, Between Empire and Nation, p. 68-69.

[30] Cited in KING, Budweisers, p. 37.

[31] BRUCKMÜLLER, Patriotic and National Myths, p. 14. See also: HANNELORE BURGER, Sprachenrecht und Sprachgerechtigkeit im österreichischen Unterrichtswesen 1867–1918, Wien 1995.

[32] TAYLEROVÁ et al., Česká technika, p. 61.

[33] Ibid., p. 62.

[34] Ibid., p. 64; JÍLEK/ LOMIČ, Dějiny, p. 492-513.

[35] OTAKAR FRANĚK, Dějiny české vysoké školy technické v Brně, vol. 1 – until 1945, Brno 1969, p. 38, 64.

nic separated, a group of SIA members left to form the German Polytechnical Society (*Deutscher polytechnischer Verein*). In 1883, those who remained in the SIA rewrote the bylaws to render it an association representing Czech engineers in Bohemia.[36] Furthermore, in 1895, the Czech Technical Foundation (*Česká matice technická* – ČMT) was established in Prague. To compete with the primacy of technical literature in German, this publishing house devoted itself to the production of 'high quality, yet cheap Czech technical literature'.[37]

But if linguistic educational reforms ultimately had a divisive nationalistic impact on the engineering profession in Bohemia, Franz Joseph's strengthening of the academic standing of all technical colleges meant that the possibility for a shared imperial outlook was retained for the profession as well. The impetus for these reforms was given by Franz Grashof, a founding member of the Association of German Engineers (*Verein Deutscher Ingenieure*) in Berlin. His 'Manifesto of 1864' called for a technical college (*technische Hochschule*) to train engineers of all specializations for employment in civil service and industry.[38] The Vienna Polytechnic became a *Hochschule* in 1872, Prague gained a *Hochschule* and a *vysoká škola technická* in 1879 and Brno's polytechnic became a *Hochschule* in 1873.[39]

Increasing the academic standing and employability of its growing number of students was also of common concern to the leadership of the Bohemian colleges. This was again equally true for the German *Hochschulen* and the Czech *vysoké školy*. Linguistic separation was not perfectly synonymous with nationality, nor did it preclude use and knowledge of each others' facilities. For example, many students who identified as Czech continued to enrol in the German technical colleges in Prague and Brno. At Prague's German Technical College, Czech students made up about one fourth of enrolments in the 1870s, one third in the 1880s, and about twenty per cent by 1890.[40]

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[36] EMIL ŽENATÝ, Spolek Československých inženýrů, in: Průvodce světem techniky, ed. by BEDŘICH MANSFELD, Praha 1937, p. 365-367, p. 365; IRINA SEIDLEROVÁ, Science in a Bilingual Country, in: Bohemia in History, ed. by MIKULÁŠ TEICH, Cambridge 1998, p. 229-243, p. 237.

[37] LADISLAV VOTRUBA, Centenary of the Česká Matice Technická. A Foundation for Publishing of Technical Books, in: Dějiny věd a techniky 28 (1995), p. 177-187, p. 187.

[38] KEES GISPEN, New Profession, Old Order. Engineers and German Society, 1815-1914, Cambridge 1989, p. 78-80. The Berlin Hochschule was established in 1879.

[39] COHEN, Education, p. 51; POKORNÝ, Ingenieure in Böhmen, p. 367.

[40] VÁCLAV LOMIČ, PAVEL HORSKÁ, Dějiny českého vysokého učení technického, vol. 1, part 2, Praha 1978, p. 175.

Czech students who enrolled in Prague's Czech Technical College also regularly audited classes in their German counterpart.[41] Consequently, changes that were introduced at Czech-language technical colleges were partly intended to better compete with German-language institutions. For example, new professors were expected to bring in considerable practical experience. At Prague's Czech Technical College, Professor of Machine Engineering Jan Tille built his own machine models for teaching in 1875.[42] Brno's Czech Technical College hired leading engineers from nearby machine works, such as František Kovářík, as 'honorary lecturers'.[43] Technical colleges also tried to offer their students more hands-on practical training. The model for this again came from imperial Germany. In the mid 1890s, German technical colleges began establishing research laboratories after several professors, including Professor of Mechanical Engineering Alois Riedler, had visited the 1893 World's Columbian Exposition in Chicago.[44] Research laboratories, they believed, had allowed American technology to run ahead of German engineering.[45] Austria's technical colleges sought to follow suit. For example, one of the earliest research institutes at Prague's Czech Technical College was devoted to the sugar industry.[46] In 1905, Prague's German Technical College established a small laboratory for mechanical engineering, while Vienna's Technical College was scheduled to receive one in 1912.[47] In 1913, Professor Antonín Smrček received permission to construct a laboratory for hydraulic engineering there – among the first in Austria and the world.[48] In 1911, Professor Karel Ryska built a laboratory for testing cutting tools.[49]

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[41] Ibid., p. 57.

[42] Ibid., p. 151; TAYLEROVÁ et al., Česká technika, p. 73.

[43] FRANĚK, Dějiny české vysoké školy technické v Brně, p. 86.

[44] The World's Columbia Exhibition celebrated the four-hundredth anniversary of Christopher Columbus's voyage to the Americas. This fair attracted more than twenty million visitors and emphasized America's rise as an industrial and cultural world power. NORMAN BOLOTIN/ CHRISTINE LAING, The World's Columbian Exposition. The Chicago World's Fair of 1893, Champaign 1992; ROBERT MUCCIGROSSO, Celebrating the New World. Chicago's Columbian Exposition of 1893, Chicago 1993; TRUMBULL WHITE/ WILLIAM IGLEHEART, World's Columbian Exposition, Chicago, 1893, Boston 1893.

[45] GISPEN, New Profession, p. 151-159.

[46] ALBÍN BAŠUS, Technické školství a jeho význam, in: Přehled 15 (1911), p. 272-274, p. 274.

[47] VLADIMÍR LIST, Technické studium, in: Technický obzor (1911), p. 170-174, 178-180, 184, 187-188, p. 172.

[48] FRANĚK, Dějiny české vysoké školy technické, p. 275.

[49] OTTO SMRČEK, Přehled vývoje obrábění kovů v letech 1900-1945, in: Studie z dějin techniky 1 (1988), p. 43-227, p. 217.

Consequently, between 1848 and 1914, a larger cadre of academic engineers was created in Bohemia than ever before.[50] Graduates of *technische Hochschulen* and *vysoké školy technické* in Brno and Prague alike considered themselves technical experts on account of their higher technical education. As in Gerstner's days, this belief was based on their specialized theoretic and practical knowledge – now trained with greater hands-on experience. However, linguistic separation in education had also begun to produce lasting professional divisions into German and Czech institutions.

3. The Nationalization of Bohemian Industry and Technology, 1848-1914

Bohemia rose as an industrial power within the empire over the course of the nineteenth century. This process of modern industrialization was shaped by nationally indifferent, Czech and German Bohemians alike. Fortunate geological and geographic conditions, and Habsburg educational reforms and economic policies all contributed as well. However, starting in the 1880s, the question of who produced and owned what components of Bohemian industry became a prevalent one. Both German and Czech nationalists began to pursue an increasingly aggressive strategy of economic nationalism to boost greater political leverage over the province. This economic nationalism was facilitated by the introduction of regular censuses in the 1880s. Austria's census required citizens to register one language of use (*Umgangsprache*) only. Again, from the imperial point of view, this did not represent nationality. Yet it soon inspired nationalists to compete over their 'national property' (*Nationalbesitzstand*, *národní majetek*).[51]

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[50] COHEN, Education, p. 279: If in 1889/90, a total of 1,789 students were enrolled in a technical college in Austria-Hungary, a decade later, in 1899/1900, there were 5,334. And by 1909/1910, as many as 10,805 students were enrolled.

[51] PIETER M. JUDSON, Guardians of the Nation. Activists on the Language Frontiers of Imperial Austria, London 2006, p. 27. German economic nationalism is analysed in: PIETER M. JUDSON, 'Not Another Square Foot!' German Liberalism and the Rhetoric of National Ownership in Nineteenth Century Austria, in: Austrian History Yearbook 16 (1995), p. 83-97. Czech economic nationalism is the topic of: CATHERINE ALBRECHT, National Economy or Economic Nationalism in the Bohemian Crown Lands 1848-1914, in: Labyrinth of Nationalism. Complexities of Diplomacy. Essays in honour of Barbara and Charles Jelavich, ed. by RICHARD C. FRUCHT, Columbus 1992, p. 69-83; CATHERINE ALBRECHT, The Rhetoric of Economic Nationalism in the Bohemian Boycott Campaigns of the Late Habsburg Monarchy, in: Austrian History Yearbook 12 (2001), p. 47-68.

In other words, the Bohemian industrial economy was being split up into German and Czech accomplishments, depending for example on the national loyalty of its founders or the source of its (investment) capital. Regarding the latter, Czech Bohemians claimed companies financed by credit cooperatives, cooperative sugar refineries and other agricultural coops, or businesses owned by the *Živnoštenská Banka* (a Czech universal joint stock bank).

Bohemian businesses that were imperial in outlook and/or amorphous in their nationality found themselves pulled into this national economic competition. The Škoda machine works in Pilsen/Plzeň, for example, were originally set up by Emil Škoda (1839–1900) in 1869. Educated at Prague and in Karlsruhe, Škoda likely thought of himself as an Austrian first, as did his son Karel Škoda (1879–1929) who inherited a majority share in the works in 1900.[52] Much of its management staff and labour force likely had a mix of nationally indifferent, German and Czech loyalties. But the company was present at significant Czech industrial exhibitions.[53]

The most important of these was the Jubilee Exhibition of 1891. On the one hand, this Prague exhibition fitted in the tradition of industrial fairs dating back to the eighteenth century. This tradition had gained special prominence by 1851 with the Great Exhibition at the Crystal Palace in London. Late nineteenth-century fairs, amongst others, sought to celebrate industrial progress, to sell products and to exchange technical information. But most of all, a fair was to boost popular pride of and international

[52] Emil Škoda's father, Franz Škoda, was a physician in Pilsen/Plzeň. He climbed the imperial ladder and was knighted by Franz Joseph in 1866. Emil Škoda was born in Pilsen/Plzeň in 1839. He studied four semesters at the Prague Polytechnic, graduating ultimately from Karlsruhe Polytechnic in the early 1860s. He was named a member of the House of Lords in Vienna, where he joined the centralist '*Verfassungstreue*' Bohemian nobility (see note 29). His son Karel Škoda studied at the *Technische Hochschule* in Stuttgart and Zürich. SKODA, Skodawerke 1869–1939. Jubiläums-Denkschrift der Skodawerke, Pilsen 1939, p. 9-10; Český biografický slovník XX. století, ed. by JOSEF TOMEŠ et al., vol. 3, Q-Z, Praha 1999. Valentina Fava's contribution, People's Cars and People's Technologies. Škoda and Fiat Experts face the American Challenge (1918–48), in this volume significantly analyses Škoda's use of American knowledge starting in the interwar period, after Czechoslovakia had 'nostrified' the company. (This process of naturalizing joint-stock companies is described in: ALOIS RAŠÍN, Financial Policy of Czechoslovakia during the First Year of its History, Oxford 1923, p. 135-137. ALICE TEICHOVA, An Economic Background to Munich. International Business and Czechoslovakia 1918-1938, Cambridge 1974, p. 196 specifically analyses the transfer of Karel Škoda's shares in 1919).

[53] Škoda participated at the exhibit organized by the SIA in 1887 and at the Jubilee Exhibition of 1891. SMRČEK, Pražské výstavy, p. 92, 97.

esteem for the nation state and/or the imperial power that hosted it.[54] What was unusual about the Provincial Jubilee Exhibition, therefore, was that the industries, crafts and arts on display aimed to strengthen the cause of an aspiring nation that was as yet without the recognized rights of a state.

As described in the introduction above, the Jubilee Exhibition came to constitute a turning point. Initially, it was scheduled to display all of Bohemian accomplishment. However, during the long process of preparation, German Bohemian leadership decided to boycott the fair.[55] The exhibition subsequently emerged as the first national Czech industrial exhibition. All Czech Bohemian industries, or those compelled for economic reasons to align themselves with the Czech nationalist cause, were present at the Jubilee. Consequently, the 1891 Jubilee came to be remembered as having demonstrated for the first time the impressive technological dimension of the Czech nation. Besides List, Czech engineer Jaroslav Veselý also reflected on how the Jubilee Exhibition 'for the first time led to the realization that the Bohemian lands and the Czech nation had a lot of meaning, in economy, industry and technology'.[56]

The establishment of the Technology Museum of the Bohemian Crown Lands in 1908 was another pivotal event in the 'nationalization' of Bohemian industries. It also once more showed the significance of imperial German examples. In 1903, Oskar von Miller (1855–1934) established the Deutsches Museum in Munich. It boosted the accomplishments of German industry and technology – i.e. the technological dimension of the German nation – and presented them to a broad audience. In Austria, both Wilhelm Franz Exner (1840–1931) at the Agricultural University in Vienna and the faculty of the Czech Technical College in Prague sought to follow the example of the Deutsches Museum.[57]

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[54] There is a growing historiography on industrial fairs and exhibitions. Recent work specifically concerned with East Central Europe includes: ALBRECHT, Pride in Production; ALICE FREIFELD, Marketing Industrialism and Dualism in Liberal Hungary. Expositions, 1842-1896, in: Austrian History Yearbook 19 (1998), p. 63-91; ALEXANDER GEPPERT, Fleeting Cities. Imperial Expositions in Fin-de-Siècle Europe, New York 2010; ALENA JANATKOVÁ, Modernisierung und Metropole. Architektur und Repräsentation auf den Landesausstellungen in Prag 1891 und Brünn 1928, Stuttgart 2008. An early work on American world's fairs is: ROBERT W. RYDELL, All the World's a Fair. Visions of Empire at American International Expositions, 1876-1916, Chicago 1984.

[55] ALBRECHT, Pride in Production, p. 108-113; AGNEW, The Flyspecks, p. 98-99.

[56] Cited in SMRČEK, Pražské výstavy, p. 99 (author's translation). Veselý was the first head of the Technical Museum in Prague, discussed below.

[57] WILHELM FRANZ EXNER, Das Technische Museum für Industrie und Gewerbe in Wien, Wien 1908; JOSEPH GRUBER, Technické museum pro království České, Praha 1908.

Exner envisioned a centralized Museum of Technology for Industry and Trade in Vienna, dedicated ultimately to imperial accomplishments. In Prague, it was particularly Czech economist Joseph Gruber (1865–1925) who led efforts to prevent Bohemian achievements from being claimed by Vienna. 'We owe it to our technological past to establish our own museum,' he argued.[58]

In the end, two new technology museums were created. Emperor Franz Joseph laid the keystone for the Technical Museum in Vienna in 1909.[59] The Technical Museum in Prague was officially devoted to Bohemian accomplishments. However, as had been the case with the Jubilee Exhibition, German Bohemian leadership preferred to refrain from participating.[60] Prague's Museum of Technology of the Bohemian Crown Lands became another Czech victory in their competition for 'national ownership' of 'industrial property'.

4. 'The National Economy is Technological': The Rise of Scientific Management in the Bohemian Lands, 1909–14

By the late nineteenth century, thus, Czech and German national leaders competed over Bohemian industry and technology. Yet, this did not mean that academic engineers were seen as national leaders, or even recognized as technical experts.

Compared to Czech university graduates, for example, few engineers had obtained a leading position with a Czech political party before 1900. Jan Kaftan (1841–1909), a prominent railroad engineer, was one exception. He was elected to the Austrian parliament for the Young Czech Party in 1891.[61]

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[58] GRUBER, Technické museum, p. 16 (author's translation).

[59] 100 Jahre. Technisches Museum Wien, http://www.tmw.at/default.asp?id= 2666&cid=2666&al=Deutsch, accessed 20 March 2009.

[60] O technické museum pro království České a jeho významu v průmyslovém i živnostenském pokroku, in: Národohospodářský obzor (1910), p. 392-399, p. 395.

[61] The leadership of the Old Czech Party had included the historian František Palacký, architect Joseph Hlavka and economist Albín Bráf. The Young Czech Party leadership included physicians Edvard Grégr, Václav Samánek, Joseph Sil and Emanuel Engel, mathematicians František Tilsner and Gabriel Blažek, economists Joseph Kaizl and Karel Kramář, and engineer Jan Kaftan. The Czech People's Party, often called the Realist Party, was established in 1901 by professors of philosophy Tomáš Masaryk and František Drtina, and economists Joseph Gruber and Cyrill Horáček. See BRUCE M. GARVER, The Young Czech Party 1874–1901 and the Emergence of a Multi-Party-System, New Haven 1978, p. 133, 134, 304.

In addition, there were few engineers actually in charge of 'technological work'. In the new world of corporate capitalism, Bohemia's growing cadre of academic engineers was hired into salaried, managerial positions. Jurists held the majority of civil service jobs. This situation was again not unique to Bohemia. Alois Riedler, professor of mechanical engineering at the Berlin Technical College, first commented on the position of academic engineers for the imperial German context. 'Recognition is only given to the work of engineers,' he noted in 1898, 'not to the engineer [himself] and his mental labour.'[62]

By the late nineteenth century, therefore, Bohemian engineers, like their colleagues around the world, sought to develop professional strategies to counter this trend. One alternative, explored by the SIA, was to bolster professionalism at the imperial level. From 1880 to 1900, the SIA sent representatives to the Congress of Austrian Engineers and Architects held in Vienna. Led by the Society of Austrian Engineers and Architects (*Österreichischer Ingenieur- und Architekten-Verein* – ÖIAV) this was a platform that developed a deliberately 'non-national' and 'party-neutral' stance.[63] United in their shared academic background, 'Austrian' engineers so petitioned the imperial government for recognition of their technical expertise.[64]

By the early twentieth century, the SIA could claim some results through their participation in this strategy. The 1907 elections had sent four engineers from Bohemia into parliament.[65] Moreover, in 1908, a Ministry of Public Works was created. It centralized several technological activities, such as bridge and road construction and hydraulic engineering.[66] However, SIA members were also quick to protest that this imperial Ministry of Public Works still provided few high-level positions for engineers compared to jurists.[67]

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[62] ALOIS RIEDLER, Unsere Hochschulen und die Anforderungen des zwanzigsten Jahrhunderts, Berlin 1898, p. 64 (author's translation).

[63] PETER M. BOGRAD, Beyond Nation, Confession, and Party. The Politicization of Professional Identity in Late Imperial Austria, in: Austrian History Yearbook 27 (1996), p. 133-154, especially p. 134, 144-148.

[64] O dosavadní činnosti stálé delegace rakouských inženýrů ve Vídni, in: Technický obzor (1906), p. 21-22, 54-55.

[65] These included Jan Kaftan and Antonín Smrček. JAN BRABEC, Zastoupení obyvatelstva poslanci-techniky, in: Zpráv Spolku architektův a inženýrů v král. Českém 21 (1909).

[66] Obor působnosti ministerstva veřejných prací, in: Zpráv Spolku architektův a inženýrů v král. Českém 26 (1908).

[67] JAN BRABEC, Z debaty o rozpočtu ministerstva veřejných prací, in: Zpráv Spolku architektův a inženýrů v král. Českém 28 (1909).

Beginning around 1909, three young Czech engineers – mechanical engineer Albín Bašus (1885-1914), chemical engineer Jindřich Fleischner (1879-1922) and civil engineer Stanislav Špaček (1876-1954) – therefore decided upon a new approach. Their strategy to gain recognition as technical experts was to embrace 'scientific management'.[68]

More specifically, the trio sought to persuade the Czech public, Czech leadership as well as their colleagues that only engineers had the necessary modern expertise to keep the national economy competitive within Bohemia, within Austria and even in the world at large. Their outlook was best summarized by Fleischner in 1911, in the preface to *Technika XX. století*. The intent was to

> 'demonstrate to the Czech public at large the possibility of improving our life, our culture, our economy, business, public administration etc., through more intensive technical cooperation, while at the same time reminding the technical intelligentsia of its duty to become engaged in public activities and to contribute to the improvement of our life'.[69]

In other words, rather than waiting for Bohemian or imperial authorities to grant academic engineers better rights, Fleischner, Bašus and Špaček preferred to simply start acting as experts by publicly recommending technological improvements for the betterment of the nation.

These rebellious views of Bašus, Fleischner and Špaček were reflective of their generation. Born into lower-middle-class backgrounds in small Bohemian towns, they had enjoyed a fully Czech education, and had grown up in a period of intensified national economic competition.[70] Yet, at the same time, they were still inspired by German examples as well. It was in

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[68] Developed by American machine engineer Frederick Winslow Taylor, scientific management was originally a system for 'modernizing' machine shops. The term scientific management was coined in 1910 by attorney Louis D. Brandeis in his case against proposed rate hikes by the Eastern Railroads. If the railroads adopted 'scientific management', Brandeis argued, they would be able to cut costs and decrease rates for the public instead. LOUIS D. BRANDEIS, Scientific Management and Railroads. Being Part of a Brief Submitted to the Interstate Commerce Commission, New York 1912. Taylor published his own Principles of Scientific Management, New York 1911, to capitalize on the publicity.

[69] Uvod, in: Technika XX. Století. Revue pro kulturu a technickou ekonomii (1911) (author's translation).

[70] Fleischner was born in Jičín, in 1879, into a Czech-Jewish family. He studied chemical engineering at Prague's Czech Technical College. TOMEŠ, vol. 1, A–J, p. 324. Bašus was born in Velký Nehvizdy, in 1885. He studied mechanical engineering at Prague's Czech Technical College. OTTO SMRČEK, Albín Bašus – Propagátor vědecké organizace práce, in: Dějiny věd a techniky (1992), p. 170-177, p. 171. Špaček was born in 1876 in Slepotice and studied civil engineering at Prague's Czech Technical College. Čestní členové THJ, in: Nová práce (1938), p. 68-69, p. 68.

Berlin that Bašus and Špaček first met and recognized the potential of scientific management as a professional strategy and an industrializing principle. Taylorite Georg Schlesinger taught at the Berlin Technical College.[71] His journal *Werkstattstechnik*, begun in 1907, promoted new shop floor methods to a broader professional audience.[72] Also, several electrical industries in Berlin – Siemens, Borsig, Bosch and Osram – experimented with Taylorite measures.[73] All these developments much impressed Bašus and Špaček. Upon their return to Prague, they regularly met with Fleischner to discuss their vision.[74]

The trio concluded that the SIA, although Czech, was out of touch with their generation. As Bašus put it: 'Every practicing engineer knows that the SIA is indeed a centre of engineering bureaucracy – to practical industrial life however it is of no significance.'[75] Bašus's verdict on the SIA's journal was the same: It was too devoted to academic technical treatises in civil engineering. The ČMT, established in 1895 as mentioned above, had similarly only published five works on mechanical engineering.[76] To reach out to a broader audience, the trio instead contributed articles to national magazines such as *Přehled* (Digest), *Naše doba* (Our Age) and *Technika XX. století* (Technology of the Twentieth Century) as much as to national professional journals like the *Národohospodářský obzor* (National Economic Review) and the SIA's *Technický obzor* (Technical Review).

In his articles, Bašus, first of all, emphasized the need for Czech industries to reform their interior organization. It was especially his internship at the Siemens-Schuckert works in Berlin that had convinced him of the necessity of a more Taylorite organization. He admired the company's technical department, its team of sales engineers, its shop order system, and its precise system of calculating wages, direct costs and overhead.[77]

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[71] MARY NOLAN, Visions of Modernity. American Business and the Modernization of Germany, New York 1994, p. 19.

[72] SMRČEK, Albín Bašus – Propagátor vědecké organizace práce, p. 173. Bašus praised *Werkstattstechnik* in ALBÍN BAŠUS, Akce k zvelebování průmyslu, in: Národohospodářský obzor (1911), p. 21-29, p. 26.

[73] NOLAN, Visions of Modernity, p. 43.

[74] STANISLAV ŠPAČEK, Inž. Albín Bašus o taylorismu, in: Nová práce (1929), p. 131-133.

[75] BAŠUS, Akce k zvelebování průmyslu, p. 25 (author's translation).

[76] ALBÍN BAŠUS, O hospodářských podkladech a vývoji průmyslu strojnického v Čechach, in: Naše Doba (1909), p. 14-22, 113-118, 187-191, p. 189.

[77] Ibid. These kinds of organizational features are also emphasized in his articles upon his return from Germany: ALBÍN BAŠUS, Obchodní politika průmyslových závodů v Německu, in: Národohospodářský obzor (1913), p. 16-28; ALBÍN BAŠUS, Systemy mzdové v průmyslových závodech strojních, in: Technický obzor (1911), p. 44-46, 50-51, 60-61.

Few Bohemian industries had introduced such piecemeal reorganizations. Bašus criticized them for focusing too narrowly on 'exterior' issues of economic policy. Industrial strength could not be achieved by cartelization, syndicalism, trusts and other legal and corporate policy issues alone.[78] 'If we want to increase the efficiency of our enterprise, make it more competitive, cheapen its production and improve its prosperity,' Bašus insisted, 'we must change its interior structure, we must gain control over production itself. And this problem is not of a general, nor of an economic-political nature – but it is technological!'[79]

Secondly, Stanislav Špaček especially aimed to demonstrate what technical experts, using 'American' technology and scientific management, could achieve when put in charge of public works. Špaček himself was one of four engineers conducting a series of engineering projects along the Jizer river. He first published a study of American hydraulic engineering works, followed by two reports detailing the construction of a bridge at Sojovice and modifications to the lower stretches of the Jizer river.[80] The latter two reports showed the reader, with the help of numerous photos, the modern use of concrete in constructing the bridge as well as in bolstering the river banks. Špaček also emphasized how his team had precisely calculated the consequences and effectiveness of their engineering designs before actual construction. Moreover, like Bašus, Špaček strongly recommended the use of Taylorite time studies in determining workers' wage rates and their anticipated speed of work. He believed this was also in the workers' interest as it would increase wages for the same amount of energy spent.[81]

Thirdly, Jindřich Fleischner emphasized the significance of 'technological culture'.[82] Humanity had infinite needs, he argued, yet the amount of energy in the world was stable and finite. Over the course of history, technology had allowed people to satisfy more needs, decrease the human work load and increased free time by finding increasingly efficient ways of energy conversion. In Fleischner's vision, technology thus became the essence of culture and social progress. 'If we consider all the influences, besides the direct technical impact,' he argued, 'on law, medicine, art […]

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[78] BAŠUS, Poznámky k hospodářské politice průmyslových závodů, p. 363.

[79] BAŠUS, Akce ke zvelebování průmyslu, p. 23 (author's translation).

[80] STANISLAV ŠPAČEK, Rozpojování a doprava hmoty hydraulickým způsobem splachovacím, Praha 1909; STANISLAV ŠPAČEK, Stavba mostu přes Jizeru v Sojovicích, Praha 1910; STANISLAV ŠPAČEK, Úprava dolního toku Jizery, Praha 1913.

[81] ŠPAČEK, Úprava dolního toku Jizery, p. 24-28.

[82] JINDŘICH FLEISCHNER, Technická kultura, in: Technický obzor (1911), p. 150-154.

and so many other fields, we have a mental picture of our immediate future, of technological culture.'[83]

Finally, while comparing Czech education to imperial German examples, the trio also called for further reforms of technical education to prepare engineers still better for their role as technical experts. In this aspect of their campaign they were joined by Vladimír List, then a young professor in electrical engineering. He provided students with lecture notes and lithographs of electrical components, and included legal and economic aspects of electrical engineering in his course.[84]

The foursome, in this case, demanded that Czech technical colleges 'in all specializations, be equipped with laboratories, model [machine] shops and construction sites, so that lectures and practical training in lab, shop or construction create a uniform whole'.[85] In addition, Austrian technical colleges were, once again, to follow the example of Berlin's Technical College which, in 1902, had begun to teach law to mechanical engineers.[86] List and Bašus called for more courses in law, economics and administration and industrial management.[87] Such a more well-rounded and integrated technical education was to produce 'organizers' and 'leaders', the technical experts with 'initiative' needed to further shape a modern nation.[88]

5. Conclusion

Over the course of the long nineteenth century, East Central Europe experienced significant shifts in the notion of 'technical expert'. In the aftermath of the Napoleonic Wars, commoner Franz Joseph Gerstner rose up in Bohemia to become a prominent imperial consultant. He was recognized for his technical expertise by the Bohemian estates, various iron works and by Emperor Franz I alike. To the generations of technologists who came after him, Gerstner's career, even if unusual, represented the ideal in terms of the level of influence he had wielded.

By the second half of the nineteenth century, the Habsburg Empire emerged as an industrial power in Central Europe. Technical education

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[83] FLEISCHNER, Technická kultura, p. 152 (author's translation).

[84] LIST, Paměti, p. 105-107.

[85] LIST, Technické studium, p. 188 (author's translation).

[86] ALBÍN BAŠUS, JINDŘICH FLEISCHNER, Technikové a veřejná správa. Technika a věda právni, přípustění techniku k veřejné správě, Praha 1910.

[87] LIST, Technické studium, p. 188.

[88] BAŠUS, Technické školství a jeho význam, p. 274 (author's translation).

expanded and its academic status was elevated to that of a technical college. A larger contingent of aspiring technical experts, still mostly from humble middle-class backgrounds, graduated than ever before. But, especially in Bohemia, industrialization developed hand in hand with an increasingly competitive process of national identity formation. And these twin processes reshaped the notion of technical expertise.

On the one hand, nationalized education produced an increasingly nationalized self-image within the profession; Špaček and his colleagues acted primarily as Czech engineers. On the other hand, Bohemia's industrial rise also contributed to an increased appreciation for the role of technology in the constitution of national economic strength. Yet, like their colleagues in imperial Ger-many,[89] the United States[90] and elsewhere[91] in the early twentieth century, the trio of Czech engineers were forced to conclude that their academic training did not automatically translate into a publicly recognized position of technological expertise.

Consequently, American scientific management, learned principally in Berlin, was appropriated by Bašus, Špaček and Fleischner to gain the kind of influence that Gerstner had had a century before. Their strategy was to address a wider national audience, reaching out to a readership beyond the SIA. They promoted the vision that the nation was technological. As technical experts, or 'technical intellectuals', they ultimately sought a public role – a real 'mandate'[92] – as national experts on industry, on civil engineering projects and on 'technological work' in general.

Over the course of Word War I, this assertion of national technical expertise ultimately gained significant national political backing. In 1919, Stanislav Špaček received one million Czechoslovak crowns from then President Tomáš Masaryk to build an engineering academy, the Masaryk Academy of Work (*Masarykova Akademie Práce*, MAP). As the embodiment of Špaček's prewar vision, this mostly Czech-speaking and Prague-based institution was legally authorized to, amongst others, appropriate

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[89] GISPEN, New Profession.

[90] EDWIN LAYTON, The Revolt of the Engineers. Social Responsibility and the American Engineering Profession, Cleveland 1971.

[91] HARRY LINTSEN, Ingenieurs in Nederland in de negentiende eeuw. Een streven naar erkenning en macht, Den Haag 1980; LOREN GRAHAM, The Ghost of the Executed Engineer. Technology and the Fall of the Soviet Union, Cambridge 1992, p. 103.

[92] 'Mandate' is the term Johan Schot coined in the context of Dutch engineers' demands: JOHAN W. SCHOT, DICK VAN LENTE, Techniek as politiek. Ingenieurs en de vormgeving van de Nederlandse samenleving, in: Techniek in Nederland in the twintigste eeuw, deel VII, Techniek en Modernisering. Balans van de twintigste eeuw, ed. by JOHAN W. SCHOT et al., Zutphen 2003, p. 197-231, p. 199.

American scientific management to modernize the new multinational nation state.[93]

[93] EMILIE TĚŠÍNSKÁ, Vnik Masarykovy akademie práce. Technokratické tendence a účast přírodovědců, in: Technokracie v Českých zemích (1900-1950), ed. by ANTONÍN KOSTLÁN, Praha 1999, p. 103-134, p. 108-110.

VALENTINA FAVA

PEOPLE'S CARS AND PEOPLE'S TECHNOLOGIES

ŠKODA AND FIAT EXPERTS FACE THE AMERICAN CHALLENGE (1918–48)*

Beginning in the 1910s, Europeans began to believe that on the other side of the Atlantic an extraordinarily efficient production model had been developed. *Mass production* and *scientific management* were the keywords denoting the concepts that distinguished this model from all other production paradigms in use on the Old Continent. The United States thus became the model for a growing number of European industries.

Yet, there is a growing literature indicating that until World War II awareness of American production methods did not result in the spread of mass production and scientific management techniques in European factories.[1] It was only after the war, when it seemed that American industry might become overpowering, that European managers and entrepreneurs tried to make up for lost time in narrowing the gap with the United States. Technical personnel once more began to travel overseas with the clear intention of transporting the American *one best way* back to their respective countries.[2]

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[1] DUCCIO BIGAZZI, Modelli e pratiche organizzative nell'industrializzazione italiana, in: Storia d'Italia. Annali, L'industria, ed. by FRANCO AMATORI et al., vol. 15, Torino 1999, p. 895-994.

[2] ALICE TEICHOVA, For and against the Marshall Plan in Czechoslovakia, in: Le Plan Marshall et le relèvement économique de l'Europe. Colloque tenu à Bercy les 21, 22 et 23 mars 1991, ed. by RENÉ GIRAULT/ MAURICE LÉVY-LEBOYER, Paris 1992, p. 107-118.

Studies on Americanization have focused on two major protagonists: the Marshall Plan and the automobile industry. The Marshall Plan was for a long time considered a political and economic 'turning point' that supposedly allowed American methods of technology and management to overcome European resistance.[3] The automobile industry proved most open to innovation; it also had the largest number of 'industrial pilgrims',[4] and it has often been presented in the literature as a 'paradigmatic' case.[5] Historians dealing with Americanization have, however, often disregarded what happened in Central Eastern Europe, which was excluded from the Marshall Plan and instead included in the Soviet sphere of influence.[6] Post-1945 events led historians to underestimate the influence of the American mass production model on technicians working on the eastern side of the Iron Curtain, even though there is evidence that, especially in the automobile sector, they shared with Western European technical personnel the interest for and fascination of the American productive gospel both before World War II and in its aftermath.

The present paper analyses some technical reports written between the first Czechoslovak experts' 'pilgrimages' to Fordist America in the 1920s and the rise to power of the Communist Party in February 1948. It then goes on to compare them with similar reports written by Italian engineers in the same period. The comparison with the Fiat experience primarily serves to demostrate how open the 'socialist-to-be' Czechoslovakia was towards 'Americanization', and to illustrate similarities in Czechoslovak and Italian technicians' approaches to the American model. Indeed, in both cases their attitudes could be summarized as cautious and dictated by the intention of 'piecemeal borrowing'.[7] In this regard, the information that can be gleaned from the travel reports allows us to shed light on the profound differences in the ends the American model served and also in the meaning the technical experts attributed to their own role in these two different contexts. Besides including data about American technology and technical knowhow as well as plant descriptions, these reports also reveal the expec-

[3] MATTHIAS KIPPING/ OVE BJARNAR, The Americanisation of European business. The Marshall Plan and the transfer of US management models, London 1999.

[4] JAMES WOMACK/ DANIEL T. JONES/ DANIEL ROOS, The Machine that Changed the World, New York 1990, p. 231.

[5] KIPPING/ BJARNAR, The Americanisation, p. 3.

[6] JONATHAN ZEITLIN/ GARY HERRIGEL, Introduction, in: Americanization and its Limits. Reworking US Technology and Management in Post-War Europe and Japan, ed. by JONATHAN ZEITLIN/ GARY HERRIGEL, Oxford 2000, p. 1-50, p. 2; Between Imitation and Innovation. The Transfer and Hybridization of Productive Models in the International Automobile Industry, ed. by ROBERT BOYER, Oxford 1998.

[7] ZEITLIN/ HERRIGEL, Introduction, p. 2.

tations that contact with America created in the technicians, who often felt responsible not only for the efficiency of their companies, but also for the overall development of national industry in their home countries.[8]

Thus, contact with America and its transnational 'best way' can be understood as a projection of dreams and fantasies, utopian ideals mixed with concrete projects for reconstruction that were deeply rooted in the respective national political discourses and in the contexts of postwar reconstruction.[9]

1. Limits and Challenges of Fiat's 'Do it like Ford' in Fascist Italy (1918–43)

Giovanni Agnelli's first trips to America in 1905 and 1913 demonstrate Fiat's precocious interest in the innovations taking place in the motor vehicle sector on the other side of the Atlantic.[10] The Lingotto plant, built in 1916, was the symbol of Fiat's first 'Americanism'. It was based on the assembly line, with a sequential flow of work that much resembled the organization of American factories. For the Italian engineers also, the time seemed right for the introduction of assembly lines. Fiat was so proud of its new plant that it considered the factory not just equal, but superior to its overseas rivals.[11] During the 1920s, Fiat's relations with America were already complex and articulated: Ford was not the only company that attracted the attention of the Italian experts, who carefully studied many other automobile and parts producers. However, the introduction of a mechanized assembly line at Lingotto and the consequent transformation of the organization of work lagged behind expectations. Resistance to mechanization was partly determined by the lack of a production volume sufficiently large to justify the necessary investments, and partly by some mis-

[8] DUCCIO BIGAZZI, Mirafiori e il modello americano, 1936-1960, in: Mirafiori 1936–1962, ed. by CARLO OLMO, Torino 1997, p. 237-326, p. 316; CARLO OLMO, L'ora dei tecnici. Aspirazioni e progetti tra guerra e ricostruzione, in: Pensare l'Italia Nuova. La cultura economica milanese tra corporativismo e ricostruzione, ed. by GIUSEPPE DE LUCA, Milano 1997, p. 377-431.

[9] ANTONIO GRAMSCI, Note sul Macchiavelli, sulla politica e sullo stato moderno, Torino 1949, p. 312; CHARLES S. MAIER, In Search of Stability. Explorations in Historical Political Economy, Cambridge, MA 1988.

[10] VALERIO CASTRONOVO, Giovanni Agnelli. La Fiat dal 1899 al 1945, Torino 1977, p. 21, 222-315.

[11] DUCCIO BIGAZZI, Strutture della produzione. Il Lingotto, l'America e l'Europa, in: Il Lingotto 1915-1939. L'architettura, l'immagine, il lavoro, ed. by CARLO OLMO, Torino 1994, p. 281-336.

givings about the quality of mass-produced American products.[12] Despite these obstacles, the Lingotto plant could still boast of being 'the most advanced factory in Europe, in terms of coordination and the rational planning of the work cycle'.[13] It was not only a question of machinery and systems: Fiat's affiliate in Poughkeepsie, New York (Fiat Motors), and the frequent trips taken by technicians had familiarized many of the company's managers and technical staff with the production technology, the organizational methods and the social climate of the U.S. factory environment.[14] In any case, the limited dimensions of the Italian market, the Fascist regime's policy of discouraging private consumption and the increasingly heavy burdens placed on international trade permitted only sporadic experimentation with new ways of organizing work.

In the 1930s, Fiat reduced the intensity of its relationship with U.S. companies, thus isolating itself from the 'constant flow of technical updates generated by the American automotive industry'.[15] In fact, Mussolini's government had an ambivalent and contradictory attitude towards the United States and the American production model. Admiration for the advanced technical capacities of American industry mingled with misgivings towards 'a lack of spirituality and a tendency to go too far, particularly dangerous because of the absence of core values and established traditions'.[16] The general view of *mass production* and *scientific management* was rather reductive, leaving room for the traditional views on organization and technology of Italian industrialists, who tended to run their factories with a sort of stern paternalism and support the regime's choice for a model of development based on low salaries and reduced consumption.[17] However, the unfavourable social and political climate did not prevent Fiat and a few other big companies from continuing to study and confront themselves with the new American principles and methods of work organization, but in general they did so in their internal offices and research centres.[18]

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[12] Ibid., p. 300.

[13] Ibid., p. 303.

[14] BIGAZZI, Modelli, p. 929.

[15] BIGAZZI, Mirafiori, p. 255.

[16] BIGAZZI, Modelli, p. 940.

[17] DUCCIO BIGAZZI, Mass Production or 'Organized Craftsmanship'? The Post-War Italian Automobile Industry, in: Americanization and its Limits, p. 269-297, p. 269-270.

[18] VALENTINA FAVA, L'ufficio statistica e studi economici scopre l'operaio. Da lavoratore a consumatore, in: La Fiat nel mondo, il mondo della Fiat (1930–1950), ed. by CHIARA CASALINO/ VALENTINA FAVA, Venezia 2002, p. 135-144.

2. The 'Czechoslovak Ford' and Masaryk's Czechoslovakia: Between Ideals and Pragmatism

Tomáš Garrigue Masaryk's humanitarian socialism heavily influenced the reception and reworking of theories of scientific management in interwar Czechoslovakia, inspiring a lively debate on the various components of Taylorism and Fordism, on their characteristic features and on the possibilities of transferring them to the Czechoslovak context.[19]

To an even greater degree than elsewhere in Europe, Taylorist principles and Fordist technologies seemed to offer the nascent democracy and its technicians an opportunity to achieve prosperity and productive efficiency while avoiding class conflict and preserving national unity. Higher productivity would have ensured the survival of democracy – which Masaryk understood as an organization of society based on work, in which the exploitation of one class for the benefit of another could not exist. In this perspective, cooperation between workers and technicians, leading to greater efficiency, could become the foundation of national solidarity and a material and moral starting point for a healthy, independent and democratic society.[20] These principles became the essence of a sophisticated Czechoslovak technocratic movement that maintained close relations with the American and European technical communities.[21]

One of the most active institutions in the spreading of scientific management in Czechoslovakia was in fact the Masaryk Academy of Work (MAP,

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[19] Tomáš Garrigue Masaryk (1850–1937), philosopher, journalist, politician and sociologist, is considered the founder of the Czechoslovak state. Exiled in 1914 after the outbreak of World War I, he travelled in Italy, France, Britain, Russia and the United States advocating the creation of an independent state for the Czechs and the Slovaks. Back in Prague, in 1920 Masaryk became the first president of Czechoslovakia. Among his most important political works are *Česká otázka* and *Naše nynější krize* (1895), *Otázka sociální* (1896), *Světová revoluce* (1925) and the unfinished *Rusko a Evropa*.

[20] TOMÁŠ GARRIGUE MASARYK, Nová Evropa. Stanovisko Slovanské, Praha 1920; ALBERTO BAZALA, Il pensiero di Masaryk, Praga 1935, p. 33; EVA SCHMIDT, Thomas G. Masaryk's Realism. Origins of a Czech Political Concept, München 1984, p. 138-141; for the engineers' revolution: ELISABETH VAN MEER, Engineering beyond Politics? Professional Ideology, Scientific Management, and the Evolution of Czechoslovakia, 1848–1948, University of Michigan Dissertations Publishing, UMI Digital Dissertations 2006.

[21] OTTO SMRČEK, Labor-ethics. A Czechoslovak Analogy of Technocracy, in: Acta Historiae rerum naturalium necnon technicarum 21 (1989), p. 145-161; JAN JANKO, EMILIE TĚŠÍNSKÁ, Technokracie v Českých zemích (1900–1950), Praha 1999; in English: JUDITH MERKLE, Management and Ideology. The Legacy of the International Scientific Management Movement, Berkeley 1980, especially p. 172-208; CHARLES S. MAIER, Between Taylorism and Technocracy. European Ideologies and the Vision of Industrial Productivity in the 1920s, in: Journal of Contemporary History 2 (1970), p. 27-61, especially p. 45-54.

Masarykova Akademie Práce), founded in 1920 in honour of Czechoslovakia's first president. During the 1920s, the MAP played an important role in promoting contacts between young Czechoslovak engineers and the Ford Motor Company's factories. It sponsored and organized their trips and published accounts of their visits.[22] In these reports, the young engineers, who had personal experience in working on the assembly line, seemed especially interested in the issues of 'work' and its 'humanity'. What was immediately understood and endorsed – more than merely 'moving the metal' or the mechanization of the production process – was the Fordist system, which reached outside the factory and contributed to the creation of a new workforce that could share in the goals of the company and provide consumers.[23] However, discussions on scientific management tended to remain restricted to speculations within the engineers' communities. With few exceptions, Czech entrepreneurs did not prove very receptive to the new principles. Among these noted exceptions was the 'Czechoslovak Ford' – the newborn Škoda Auto.

Škoda Auto was founded in 1925 as a result of the merger between the Škoda Works Engineering and Armament Combine and the Mladá Boleslav automobile producer Laurin & Klement (L&K).[24] The merger was immediately followed by the modernization of the L&K plants in Mladá Boleslav.[25] Between 1926 and 1928, new plants were added to the old factory and the

[22] The reports are in: Archive of the Academy of Sciences of the Czech Republic, henceforth AVČR, fond Masarykova Akademie Práce, 95, 99, 100; Život a práce u Forda. Zápisky československých inženýrů z Ameriky, ed. by STANISLAV ŠPAČEK, Praha 1927; Ford a My. Zkušenosti československých inženýrů z americké prakse u Forda s ohledem na naše poměry, ed. by STANISLAV ŠPAČEK, Praha 1928; JAN PAĎOUREK, International Contacts of the Czech Technical Academy. The Masaryk Labour Academy and the World inbetween the Two World Wars, in: Studiae Historiae Academiae Scientiarum Bohemicae, serie C-2, Praha 1993, p. 35-50.

[23] VACLAV MUŽÍK, Z prakse ve Fordových závodech v Detroitu, in: Nová Práce 3 (1925), p. 44-45; ANTONIO GRAMSCI, Americanismo e Fordismo, Roma 1991, p. 42-43; KAREL ČAPEK, RUR e L'affare Makropulos, Torino 1971.

[24] The Škoda Works were controlled by the French company Schneider et Cie through a holding company, the Union Européenne Industrielle et Financière, created in 1920 in order to control industrial and banking participations in the former Austro-Hungarian Empire (73 per cent of the joint stock capital in 1918, declining to 46.49 per cent in 1937). See ALICE TEICHOVA, An Economic Background to Munich. International Business in Czechoslovakia, 1918-1938, London 1976, p. 203-217; CLAUDE BEAUD, Investments and Profits of the Multinational Schneider Group, 1894-1943, in: Multinational Enterprise in Historical Perspective, ed. by ALICE TEICHOVA/ MAURICE LÉVY-LEBOYER/ HELGA NUSSBAUM, Cambridge 1986, p. 87-102.

[25] The details of the merger can be found in the company's histories: VLADIMÍR KARLICKÝ et al., Svět okřídleného Šípu, Koncern Škoda Plzeň 1918-1945, Plzeň 1999; PETR KOŽÍŠEK/ JAN KRÁLÍK, L&K–Škoda, The flight of the winged arrow, Prague 1997.

buildings were equipped with imported German and American machinery – with the result that at the end of the 1920s, the Czechoslovak press considered Škoda to conform to modern standards of layout and machinery, and ready to offer its workers the expected extra-factory services.

However, an analysis of the reports written by those who visited the American production facilities that served as the models for the renovation of Czechoslovak plants reveals a cautious attitude towards the American model of mass production on the part of Škoda's management and technical personnel. While they studied this model and were fascinated by it, they seemed to favour its overall 'redimensioning', thus adapting it to the market conditions in their small Central European nation.

The most interesting account of a trip to America was written by Václav Klement,[26] a member of Škoda's board of directors and founder of L&K. In 1927, Klement left for the United States to select the equipment for the new body plant. Klement's evaluation of the American situation was at once critical and pragmatic. In fact, although he devoted much space to the necessary equipment, the mechanization of the assembly line and the enormous productivity of single-purpose machines, he did not fail to notice that these attributes were prevalent only among the giant automobile makers like Ford, Chevrolet, General Motors and Dodge. In contrast, manufacturers with limited production capacity only used the new hardware – conveyors and single-purpose machines – at certain stages of the production and assembly process. Klement's report focuses on various aspects of the American factories, often showing great interest in the smaller car makers or suppliers, which had more in common with the Mladá Boleslav plant in terms of type of production and machinery. Specialization was, in his view, the most distinguishing characteristic of the American automotive sector, and the most interesting examples were the producers of components and machinery that supplied the big auto manufacturers.

Furthermore, instead of recommending that a new workforce be forged to avoid the problems posed by Czechoslovakia's skilled and unionized personnel, Klement saw the substitution of manual labour with machines and the deskilling of tasks as an ingenious and inevitable, though perhaps not entirely desirable, solution to a problem specific to American industry. Indeed, while in the United States there was a lack of skilled and experi-

[26] Mýtus a realita hospodářské vyspělosti Československa mezi světovými válkami, ed. by EDUARD KUBŮ/ JAROSLAV PÁTEK, Praha 2000, p. 383-384. The reports are in Škoda Auto Historical Archives, henceforth AŠA, fond Akciová Společnost pro Automobilový Průmysl, henceforth ASAP, 93, especially: Resumé Zprávy o studijní cestě gen. rady V. Klementa do Spojených Států, vykonané spolu s Ing. J. Hauserem v době od 8-7 do 5-11-1927 ku zjištění výrobních poměrů v automobilovém průmyslu americkém, Mladá Boleslav, 5 February 1928.

enced workers, at Mladá Boleslav such workers were in oversupply. Even the social benefits offered to American factory workers – housing, cafeterias, medical care and disability insurance – seemed to him an expression of the attempt to reduce the high rate of employee turnover, which was damaging to American manufacturers. The same could be said for distribution systems, advertising and instalment plan purchases, which grew out of the specific American context. These observations are mirrored by the technical and production characteristics of the Škoda workshops, which, although equipped with some U.S. machinery, neither had nor planned to attain the dimensions or the production capacity typical of plants more closely modelled on American factories.[27]

Although written from different perspectives, both Klement's reports and the contributions of young engineers from the MAP seemed to agree with the national political discourse inspired by Masaryk's humanitarian socialist and small-nation rhetoric. American factories were undoubtedly a model of efficiency, but what the Czechoslovak technicians were looking for was a 'national' model that could incorporate the country's tradition of artisanship, preserving and making the most of its highly qualified workforce and the high qualitative standards of its mechanical industry. Even more so than in the accounts of Fiat engineers, in their reports the productive practices observed in American factories seemed to loose their technical actuality to become functional to the national political discourse and the aims of Masaryk's democracy.

The Czechoslovak perspective was not a 'revolutionary' one: The experts seemed convinced that only a careful selection of foreign management systems, single practices and machinery could serve as valuable instruments to help the national industry survive and compete on the increasingly demanding markets of South Eastern Europe and parts of Western Europe.[28] For this reason, in their search for efficiency they considered not only the new American theories, but also practices and principles emerging elsewhere in Europe at the time: in France, Switzerland or Germany.

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[27] JAMES LAUX, The European Automobile Industry, New York 1992, p. 101.

[28] Some travel reports can be found in the Archive of the Academy of Sciences of the Czech Republic (AVČR), fond MAP (Masarykova Akademie Práce), 95, Návštěvy technických odborniků v ČSR; AVČR, MAP, 100, Zprávy; AVČR, 99, Stipendium Václava Klementa: see in particular travel reports written by: J. Černík, 1922; V. Čechura, 1926; S. Malec, 1927; E. Kratochvíl, 1928; J. Hanuš, 1928; L. Cigánek, 1929. Some of these reports were published in the 1920s, see for example the collection ŠPAČEK, Ford a My, and the different issues of Nová Práce of the years 1927-1928. More information about these trips can be found in JAN PAĎOUREK, Snahy o organizování praxe Československých inženýrů v USA (20 a 30 léta 20 století), in: DVT. Dějiny vědy a techniky 3 (1992), p. 129-139.

Especially at the workshop level, the variety of industrial models the Czechoslovak industrial milieu had experienced since the end of the nineteenth century had left its mark, influencing the reception of the American mass production model and adding a specific feature to Czechoslovak managerial Americanism.[29]

3. Fiat's 'American Engagements' in the Postwar Era

Even before the end of the war, Fiat had already resumed its relationship with the American automotive industry. Fiat's president Vittorio Valletta seemed to have had no doubts about the rapid recovery of the Italian economy.[30] He was convinced that, having brought production up to date, the economy was now headed towards a period of intense development in which Fiat would play a fundamental role. Valletta was certain that Italy would align itself with the capitalist world and that any necessary modernization should take place in the context of an Italian-American alliance and cooperation.[31] As he stated in a 1948 lecture to Turin's entrepreneurs, the 'modernization of the plants' and the 'requalification and reconversion of the human factor in the productive process […] are the first objectives to be attained'. He intended to achieve these goals by following the 'policies that Fiat has always followed on the topic, according to the principles dictated by the founder Giovanni Agnelli'.[32] This was a strategy based on export

[29] Yves Cohen has suggested shifting the research focus from the history of the 'transfer' of the 'American model' towards the history of 'industrial practice' as realized at the local level. This would allow historians to better appreciate the multiple influences and knowhow embedded in an industrial practice as it is applied in a specific context. This approach seems particularly useful for Central Europe as it allows us to distinguish the manifold and diverse components that constitute an industrial practice without immediately determining its origin (be it American, Soviet or even Swiss or German). It moreover helps to clarify what was in many cases the primary motive of the historical actors behind the choice to import or introduce a machine or an organizational practice into the production cycle: the search for efficiency, for the certainty of continuity in the flow of production and the 'success' of the final product. See YVES COHEN, Organiser à l'aube du taylorisme. La pratique d'Ernest Mattern chez Peugeot, 1906-1919, Besançon 2001, especially p. 9-15.

[30] BIGAZZI, Mirafiori, p. 258.

[31] PIERO BAIRATI, Valletta, Torino 1983, p. 86-87, 171-184; VALERIO CASTRONOVO, Fiat 1899-1999. Un secolo di storia italiana, Milano 1999, p. 760-796.

[32] VITTORIO VALLETTA, Ripresa della produzione nazionale e in particolare di quella del Piemonte. Conferenza tenuta dal professor Valletta presso l'Unione industriali di Torino giovedí 13 maggio 1948 and Appunti per i futuri orientamenti produttivi italiani and Preminenza dell'Industria automobilistica, internal Fiat document published in: CASALINO, FAVA, p. 19-34 and 225-235. Vittorio Valletta (1883–1967), a business consultant and

and on the introduction of the most modern American organizational and technical practices.

Even during the war, Fiat had never completely broken off personal contacts with top executives of leading American companies. Some of its directors had met with British and American representatives, not only in Switzerland, but also in Rome and Turin. In 1943, a document attributed to the company's director of foreign affairs, Miran Pechdimaldij, suggested a possible basis for renewed collaboration between Fiat and American industry: The Turin company would specialize in compact cars with small engines, exploiting its knowhow and its relatively low cost of labour, and would in addition assemble American-style cars to be sold on the Italian market or within its sphere of influence.[33] In 1944, this proposal for a division of labour was confirmed during a meeting between Giancarlo Camerana, a Fiat vice-president, and Allen Dulles, then head of the American intelligence services in Switzerland. In 1946, Valletta reformulated the nature of Fiat's relations with American industry before the Economic Commission of the Italian Constituent Assembly, making clear that these relations were to be characterized by mutual assistance or even partnership rather than competition. Fiat would produce small cars with engine sizes ranging from 500 to 1,100 cc, taking advantage of mass production and economies of scale. This way, it would not compete directly with U.S. products.[34]

So it was with the intention of reforging their old ties that Fiat's technicians left for the United States in 1946 – for the first time after World War II – to visit the Chrysler plants. It was to be a brief visit, an initial step to prepare the lengthier ones by design teams and plant managers carried out a few months later.[35] Valletta signed a formal agreement covering the

university professor of accounting, joined Fiat in 1921, and in 1939 became the company's CEO. In 1946, he succeeded Giovanni Agnelli, Fiat's founder, as the firm's president. In 1966, Valletta, aged eighty-three, retired and Gianni Agnelli, Giovanni's grandson, took over his position. See BAIRATI, Valletta.

[33] BIGAZZI, Mirafiori, p. 256.

[34] Ibid., p. 287.

[35] Taylorismo e fordismo alla Fiat nelle relazioni di viaggio di tecnici ed ingeneri (1919-1955), ed. by PIER LUIGI BASSIGNANA, Torino 1998, especially the reports therein by ARMANDO FIORELLI, Relazione della visita a stabilimenti Chrysler (16-26 December 1946), p. 240-261 and ALESSANDRO GENERO, Impressioni riportate dal sottoscritto, as well as Proposte per il programma di modernizzazione nei nostri mezzi di lavoro (from 23 May to 18 July 1947), p. 265-278. The technicians sent to the U.S.A. in 1947 were among the most influential managers at Fiat: Alessandro Genero, originally a worker, was an expert in workshop issues. In 1929, he was appointed director of the plant at Lingotto. After the war, he entered Fiat's board of directors. Armando Fiorelli was an industrial engineer hired by Fiat in 1920, aged twenty-four, to supervise the equipment of the new machine tools. After

technical cooperation between Fiat and Chrysler in 1947. This agreement was 'reciprocal and exclusive', although that same year Fiat's technicians had also visited the General Motors plants, especially those producing components or parts like Budd in Detroit.

4. The Postwar Years: The Czechoslovak Path to Socialism and the American Model

The nationalization of key industries was decided upon by the first National Front government of Czechoslovakia. Under the considerable political influence of the Communist Party, the government declared its intention to implement a 'socializing' programme of reforms known as the Košice Agreement.[36] Škoda was nationalized on 7 March 1946 and divided into several independent companies. The Škoda Factories in Plzeň (in Czech: *Škodovy Závody*) were responsible for heavy engineering production, while national automobile production was to be concentrated in the Mladá Boleslav Kvasiny and Vrchlabi plants. The former Škoda Auto was thus renamed Automobile Factories, National Enterprise (in Czech: *Automobilové Závody, Národní Podnik* [AZNP]).

In this new context, it is interesting to note the creation of a plan for the growth and development of the Czechoslovak automobile industry which, while destined to remain only on paper for a long time, nevertheless gives an idea of how Czechoslovak experts faced the challenges posed by changes in the political and institutional framework, and how they imagined their role in the new Czechoslovakia. In the initial stage of reconstruction and the first formulation of an economic plan, the experts of the motor vehicle industry again examined the American model with renewed attention.

World War II, he was named director of Fiat's most important factory, Mirafiori. Further information can be found in FRANCO AMATORI, Gli uomini del professore. Strategia organizzazione e management alla Fiat tra anni Venti e anni Sessanta, in: Grande impresa e sviluppo italiano. Studi per i cento anni della Fiat, ed. by CARLO ANNIBALDI/ GIUSEPPE BERTA, Bologna 1999, p. 257-342. Another expert who participated in the trips o America was Dante Giacosa (1905–96). As the designer of the Fiat 600 and 500 (1936), he received a degree in mechanical engineering in 1927 from Turin's Politecnico and commenced his activity at Fiat in 1928. In 1933, he became head of Fiat's technical department (Ufficio Tecnico Vetture). In 1955, he was named director of Direzione superiore tecnica autoveicoli and, in 1966, director of the automobile division and became a member of the board of directors. His reports have been collected in DANTE GIACOSA, Il mestiere di progettista. Antologia degli scritti, ed. by PIER LUIGI BASSIGNANA, Torino 2000.

[36] ALICE TEICHOVA, The Czechoslovak Economy, 1918–1980, London 1984, p. 119-121.

'Collaboration with the United States of America' – to use the term employed in the Škoda archives – was a project for restructuring the entire Czechoslovak automotive sector. It was planned in 1946-47 and included repeated visits by Alexander Taub, an American consultant, to the Škoda Factories, as well as a number of training visits by Czechoslovak technicians to the United States. Working with them, Taub tried to design a project that would emulate the American experience while taking advantage of the rich Czechoslovak tradition.

Unfortunately, we know very little about Taub. While the backing of František Fabinger,[37] general director of the central directorate of the Czechoslovak Engineering and Steel Factories (in Czech: *Československé Závody Kovodělné a Strojírenské, Národní Podnik*, [ČZKS]) is clear, the direct involvement of the American government or any of its organs cannot be established: Taub had worked for General Motors and for the American War Administration, had travelled widely, and had also worked in Brazil and Chang Kai-shek's China.[38] The technical assistance project he coordinated in Czechoslovakia did not appear to depend on financial contributions or transfer of materials and machinery from the United States to Czechoslovakia, nor did the American authorities seem to have been involved at all (at least directly). However, after February 1948, Czechoslovak security authorities emphasized the political nature of the cooperation. Taub was 'invited' to leave the country after being charged with illegal transfer of money. A few years later, Fabinger was involved in the political trial

[37] There is not much biographical or professional information on the Škoda technicians who were involved in the Taub consultancy due to the lack of personnel records in the archives. Most of the technicians were trained at the Prague Technical University (ČVUT) and came from the various factories which had been consolidated into the AZNP in 1946, after nationalization. František Fabinger, an engineer, was the man who solicited Taub's consultancy and one of the staunchest supporters of collaboration with the United States. He was general director of the ČZKS, the central directorate controlling the national steel and mechanical industries until 1948.

[38] According to Czechoslovak sources, he was an American engineer who had been working for General Motors: FRANTIŠEK H. ŽALUD, Přežili jsme. Zkušenosti z mého života 1919–1993, popsané pro má vnoučata a jejich generaci, Praha 1996, p. 60-62 (I want to thank Elisabeth van Meer for alerting me to this book). I received some additional information about Alexander Taub from Dr. Jennifer Taub: Taub was born in Great Britain. During the 1920s, he worked for General Motors and later was nominated chief engineer of the engineering service of the Office of Production Management (OPM) and the Office of Emergency Management (OEM). He was connected with the Foreign Economic Administration (FEA) and with the War Production Board, bodies created by the Roosevelt administration to deal with the war and reconstruction. After the war, he founded his own consultancy, Taub and Associates, and tried to collect money and loans for the reconstruction of Central Europe (Poland and Czechoslovakia).

against the former Party secretary Rudolf Slánský and sentenced in the process.[39]

The 'collaboration' between the United States and AZNP began on 10 June 1946, when Jaroslav Frei, former director of the motorcycle producer JAWA, and since 1946 in charge of a programme for the development of the Czechoslovak automotive industry, visited the United States and negotiated an agreement that provided for the arrival of an American technical consultant to assist in the drawing up of a plan for the reconstruction of the Czechoslovak transportation industry. The consulting work was to focus on an in-depth assessment of the Czechoslovak economic situation and the European scenario in general.[40]

Taub held that AZNP should attempt to penetrate the European automobile market, taking advantage of Germany's weakened position and England and France's difficulties in quickly reattaining their prewar production levels. Czechoslovak production was to replace German products on the market. In order to achieve this goal, it was necessary to identify on the one hand the weak points of the Czechoslovak automobile industry and on the other the technological and organizational innovations that were best suited for adoption by AZNP.

One of the effects of Czechoslovak-American collaboration was the introduction of the concept of a 'people's technology',[41] manifested in the decision to prioritize the production of a low-cost, small-engine car that the masses could afford with the aim of expanding a market that was still too limited. In fact, it was considered fundamental that the market absorb at least 125,000 automobiles per year. To reach this goal, a car should cost no more than 23,000 crowns, the equivalent of six months' salary of an average factory worker.[42] According to Taub, changes should be introduced in two areas: reducing production costs and designing a low-cost 'people's car'.[43]

But apart from this, what distinguished 'people's technology' from similar attempts to create an innovative product and expand the national

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[39] EVŽEN LŐBL, Il modello simmetrico. Questa volta in un diverso rapporto [first appeared in Literární Listy, 20 June 1968], in: Praga 1968. Le idee del 'nuovo corso', ed. by JAN ČECH, Bari 1968, p. 261-270. Lőbl refers to the political dimension of Taub's consultancy.

[40] AŠA, AZNP/p, 4, ALEXANDER TAUB, A People's Technology. A Report to F. Fabinger, General Director of Kovo. Praha, September 1946, p. 8 and AŠA, AZNP/p, 4, ALEXANDER TAUB, Zpráva I. Program vyrobků; Zpráva II, Závody a zarizení, 1947.

[41] AŠA, AZNP/p, 4, TAUB, A People's Technology, p. 9.

[42] Ibid. p. 16.

[43] Ibid. p. 1.

market – aspects that were being considered by many European car makers at the time – were the specific economic conditions of reconstruction in Czechoslovakia. AZNP was, in fact, a nationalized industry, and virtually the only producer of automobiles in the country. Restructuring it meant reorganizing the entire automotive sector, as it was fundamental for the national economy and represented a vital part of the 'national undertaking'.[44] The solutions proposed for the automotive sector inevitably grew into proposals for the reorganization of the entire national economy, including agriculture, mining and other sectors. According to Taub, AZNP's task was not limited to the construction of the plants and machinery needed to produce automobiles. Rather, it played an overarching role in promoting the industrialization of a large part of the country. Productive efforts should thus not only be concentrated in the pre-existing large industrial plants; it was also important to promote the development of smaller factories dedicated to the production of components or accessories in locations other than the traditional industrial areas. This way, in accordance with the Košice programme, the groundwork would be laid for a geographically balanced national production.[45]

More than once, Taub tapped the nationalist and anti-German sentiments of the Czechoslovak population in his report. For example, he noted: 'We appreciate that for centuries the Germans were masters and wherever they master, they teach that only they can be masters.'[46]

Reading Alexander Taub's reports, one can sense an echo of the special climate that led to America's decision to launch the Marshall Plan. As the rich literature on the Americanization of European industry has shown, there was general agreement between Europeans and Americans at the time that Europe's economic reconstruction must follow the principles of the American 'one best way'. Furthermore, the productivity ideology was part of America's answer to the promises of communism. It was a question of contrasting the 'Communist Party line' with the 'American assembly line'.[47] Taub's consulting activities were thus of particular importance to Czechoslovakia at a time when it was searching for a national approach to

[44] Ibid. p. 4.

[45] AŠA, AZNP/p, 4, TAUB, Zpráva, p. 2.

[46] AŠA, AZNP/p, 4, TAUB, A People's Technology, p. 41.

[47] Among others: CHARLES S. MAIER, The Politics of Productivity. The Foundation of American International Policy after World War II, in: International Organization 31 (1977), p. 607-633 and JACQUELINE MCGLADE, Americanization. Ideology or Process? The Case of the United States Technical Assistance and Productivity Programme, in: Americanization and its Limits, p. 53-75; ROBERT LOCKE, The Collapse of the American Management Mystique, Oxford 1984, p. 39.

socialism and nearing a heated political controversy over adherence to the Marshall Plan.[48] In this perspective, one can only wonder how Taub's message was received by the Czechoslovak experts and how much actually remained in post-World War II Czechoslovakia of the sophisticated inter-war debate on production practices and managerial principles.

5. Diverging Paths: Comparing the post-1945 Technical Missions of Fiat and Škoda

As had been agreed with Taub, Škoda's technicians also visited the United States. The purpose of these trips was to close the gap in technological and organizational knowhow that Taub had so vehemently underscored.[49] They systematically visited not only the main American automobile companies, but also the most important suppliers of components and producers of machine tools. They also did not neglect cultural institutions, including museums, technical schools and universities. Upon their return from the U.S.A., the Czechoslovak technicians brought with them a deeper understanding of the meaning of American 'modernity' in the production of automobiles and how it could be adapted to Czechoslovak plants.[50]

The main thrust of most of the reports concerned descriptions of the machines and the way they were used in continuous production. Pages upon

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[48] TEICHOVA, For and Against the Marshall Plan, p. 108.

[49] The following reports were examined: AŠA, AZNP/p, 4, VÁCLAV KREMAR, Automobilové tovarny v USA. Zpráva z cesty konané v cervenci-zaři 1947. Mladá Boleslav v lednu 1948; FRANTIŠEK FABINGER, Zahájení přednášek automobilových odborniků po navrátu z USA v AKRC dne 2. unora 1948; JAROSLAV FREI, Zpráva o prohlidce amerických automobilových a motocyklových závodů v době od 10 do 22 června 1946; VLADIMÍR MATOUŠ, Cestovní zprávy z USA, Výtah z cestovních zprav od 31. srpna do 12. listopadu 1947. As in the case of Taub, it is not easy to find information about the technicians who were involved in Taub's consultancy. However, some of them were among the best technicians working in the automotive industry in Czechoslovakia: Vladimír Matouš (1896–1963) graduated from ČVUT in 1920. He worked at Walter Jinonice before being employed at Škoda Plzeň, where he participated in the production of the Hispano Suiza. In 1928, Matouš began his activity in Mladá Boleslav: He held different positions with technical responsibility (head of construction and vice-director of the ASAP, after 1947 technical director), and he ended his career as head of technical development in 1959; Zdeněk Kejval (1905–88) graduated in 1926 from the Višší průmyslová škola strojní in Plzeň and became an expert in the processes of body construction. He worked at PRAGA from 1926 to 1935 and in 1936 went to Kvasiny, where he designed bodies for JAWA. In 1947, he was sent to Germany and the United States, and in 1947 became technical director at PRAGA. From 1955 to 1970, he was in charge of the renovation of the Mladá Boleslav plant. See JAN KRÁLÍK, V Soukolí Okřídleného šípu, Praha 2008, p. 19, 48.

[50] AŠA, AZNP/p, 4, FREI, p. 3.

pages were devoted to single-purpose machines on automated assembly lines, which carried out a series of operations without any input from the worker, who merely turned the machine on and off.[51]

Fiat's technicians also admired the Americans' new multi-station transfer machines, though there was a certain coolness in their attitude towards them.[52] They were impressed by Buick's first cylinder line in Flint, Michigan, composed of a succession of transfer machines which required only that an operator placed the piece at the beginning of the line and pushed a button.[53] Yet they remained somewhat aloof, keeping their distance from the technological mirage of the automatic machines. This kind of equipment was part of a world that differed substantially from Fiat's postwar reality, and continuous production was regarded simply as something to report. It was not worth the trouble to examine these technological innovations in greater depth, according to the Fiat technicians, because of the tremendous gap between the operation of Fiat's Mirafiori plant and real mass production.

To the Fiat technicians it seemed absurd to purchase machines that were too advanced and designed for enormous volumes and continuous production. In Italian reality, they would not have been exploited to their maximum capacity, nor would they have initiated a virtuous circle that would compensate for their astronomical cost. The American model provided a choice between several options. The technicians' goal was to find a way to improve efficiency and update their plants, not to reorganize the operation of the Mirafiori plant from the ground up.[54]

In contrast, Škoda's technicians were more fascinated by these powerful and highly efficient machines, and the space devoted to them in their reports was decidedly greater than the mere 'documentary interest' of Fiat's personnel.[55] None of the reports filed by Škoda's technicians contained criticism, while the Fiat technicians underlined more than one example of backwardness in the highly modern productive cycles they had the chance to visit.[56] When looking at the transfer machines, for example, Škoda technicians seemed to consider them the epitome of modernity, and they seldom mentioned a possible incongruity with the production cycle they were utilized in. For the Czechoslovak experts, the main problem was not

[51] AŠA, AZNP/p, 4, KREMAR.

[52] BIGAZZI, Mirafiori, p. 258-268.

[53] GENERO, Impressioni, p. 267.

[54] BIGAZZI, Mirafiori, p. 266.

[55] Ibid., p. 268.

[56] Ibid., p. 267.

having them.[57] Apart from machinery, the innovations that most impressed the Europeans involved body work techniques. Even in this case, Fiat's technicians carefully studied the American solutions, evaluating their relative cost and adaptability to the situation at Mirafiori, including the machines already in place there, and sometimes even proposing alternatives.[58] There seems to have been a difference of opinion between the American consultants and the Italian technicians regarding the transport mechanisms in the body work section. The Americans used carts, which gave them greater flexibility, while Fiat's specialists preferred aerial conveyor belts mounted with hooks, which were cheaper and required less maintenance. The Americans won out in the end, but they could not prevent the Mirafiori factory's body work section from being equipped with aerial conveyors and hooks from the 1950s onward.[59]

The Italian technicians were also disappointed by the dirtiness of the American plants and a lack of discipline that had not been apparent during their 1936 visit. The workers wasted time at the beginning of their shift, they stopped working before the bell rang, and they actually smoked inside the plants. Although at first reading these may appear to be irrelevant details, Alessandro Genero's observations illustrate the degeneration of the social climate in postwar Detroit and hinted at the new problems that American industry would have to face in the area of industrial relations.

In the reports contained in the Škoda archives, there are no observations on the American social or political context. The American system of industrial relations was completely ignored, despite the fact that the technicians repeatedly mentioned not being able to visit plants because of strikes. The lack of attention to social and disciplinary aspects, working conditions and management-worker relations could be the result of the preeminently technical mission the Czechoslovak technicians were charged with. However, it could also be the result of a particular attitude towards the American model and a certain scepticism towards a socio-political system so different from the one considered suitable for Czechoslovakia on the threshold of the institution of a socialist system and a planned economy.

6. Conclusion

There are numerous similarities between the observations of the Czechoslovak and Italian technicians who visited the United States in 1946-47. Both

[57] AŠA, AZNP/p, 4, KREMAR, p. 2.

[58] Ibid.

[59] Ibid.

groups shared a strong desire to understand the American model and a great curiosity. The model was broken down and analysed in its single elements, some of which were felt to be applicable to the Czechoslovak or Italian situation, respectively, and therefore studied in detail, while others, seen as either less applicable or even as undesirable, were put aside as 'cultural peculiarities'[60] or social ones. The technicians seemed to realize that the effectiveness of the model depended on its context and that it would not yield the same results in Czechoslovakia or in Italy, given their different industrial histories and local institutions.

The case of Škoda seems to confirm the possibility to extend to postwar Czechoslovakia an interpretation of Americanization that stresses the role played by European experts as actors who actively and selectively appropriated components of the American model to fit domestic European practices. In 1946-47, as in 1926, the Czechoslovak technicians had a distinct awareness that the techniques observed in America would have to be translated into a different context, at least as far as production volumes were concerned. They took into consideration their country's poorer market and the relative backwardness of its support industries. Jaroslav Frei wrote:

> 'We must not let ourselves be intimidated by the enormous American production, nor must we think that everything they have in America should be applied in our country. Our friend Taub says that the grass is always greener on the other side of the fence, but when you take a closer look, you can see the bare patches that were not visible from a distance [...]. We should not be discouraged by America, nor should we underestimate it. The road that will lead our automotive industry out of its difficulties exists: finding the right way to apply American knowhow to the Czechoslovak situation, in order to rapidly construct a European model.'[61]

In their reports, the Czechoslovak technicians often referred to a 'Czechoslovak model' that could utilize the American production model to reach 'European standards', but they seemed to regard Czechoslovak specificities as weaknesses and not as strengths, as they had before the war. In most of the reports there was palpable bitterness over the inadequacy of Czechoslovak plants and dissatisfaction with the limitations imposed by their lack of equipment. Criticism of inadequate bureaucrats and the delays they caused were coupled with complaints about the lack of investments. The experts wrote that they wanted to adapt the American model to the Czechoslovak tradition, but it is not clear which aspects of the latter they valued, nor is it clear what they meant when they used the term 'European'. While they

[60] LOCKE, The Collapse, p. 1.

[61] AŠA, AZNP/p, 4, FREI, p. 2 (author's translation).

kept stressing their fundamental role in laying the basis for the survival of the Czechoslovak state and their loyalty to it, the Czechoslovak experts seemed to have lost their awareness of the nation's natural 'borders' and their sense of continuity with the country's industrial past. In this sense, the reports' content and approach to the American model reveal a marked discontinuity with the interwar years. Despite calls for an adaptation to the Czechoslovak tradition, in practice Taub's project was intended to completely revolutionize production plants and techniques, as well as the organization of labour Škoda had relied on until then. Everything had to be created anew in Czechoslovakia, from machine tools to research institutes. The American model would be delivered to Škoda as a complete package ready for use, a cure-all for the problems of Czechoslovak industry.

Furthermore, the Czechoslovak case reveals the ambivalent nature of the 'American engagements' in Central Europe in the aftermath of the war: It would be naive not to notice that most (although not all) of the features of the American model that both Taub and the Czechoslovak experts stressed were more in line with the Soviet version of mass production than with the ideas of Klement or of the MAP engineers on how to modernize Czechoslovak production facilities and society. When imagining the future of nationalized big business, Czechoslovak experts began to show some of the symptoms of the 'gigantomania' that affected Soviet industry.[62] In their search for productive efficiency, the Czechoslovak technicians, in 1946, seemed to praise especially the modernity of the machines and the extraordinary dimensions of U.S. and Soviet plants. However, between 1945 and 1951, the Czechoslovak experts were drawing their plans concerning the development of the automotive sector in their country without empirical knowledge of what was taking place in Soviet factories – the first Czechoslovak automotive engineers visited the U.S.S.R. only in 1951.

Finally, while in the interwar period the technicians had referred to a variety of industrial and productive practices worth being imported, between 1946 and 1949 the Czechoslovak technical debate on the development of the automobile industry mainly focused on two alternative forms of 'engagement' to mass production. Firstly, the 'American engagement' was the result of the direct experience from visits to U.S. factories that local technicians had accumulated in the 1920s and on their 1947 trips. The second kind of 'engagement' came via Soviet 'exaggerated Fordism' – the Soviet interpretation and its propagandistic representation of the Taylorist

[62] VALENTINA FAVA, Between American Fordism and 'Soviet Fordism'. The Czechoslovak Way towards Mass Production, in: The Sovietization of Eastern Europe. New Perspectives on the Postwar Period, ed. by BALÁZS APOR/ PÉTER APOR/ E. ARFON REES, Washington, D.C. 2008, p. 47-64.

and Fordist practices imported in the 1930s from the United States to the U.S.S.R. and, after 1945, exported from there to Czechoslovakia and the other satellite states. The result was that in the debate on the development of automotive production that took place among experts at the level of both central directorates and shops before 1951, the Soviet model and the American model often superimposed and blended into one another.[63]

In the climate of insecurity and mistrust created by the Munich Agreement – regarded as an unjust exclusion of Czechoslovakia from Europe – these engagements, which shared an emphasis on the mass dimension of production in terms of the size of the enterprise, the modernity of equipment and production volumes, seemed to represent a ticket to modernity to the Czechoslovak experts. It was evident that the economic wellbeing and the productivity of the Czechoslovak plants would play the most important role in the country's being recognized as a *bona fide* European state.[64]

In contrast, continuity and loyalty to the company's strategy were the keywords in the Fiat reports. The Fiat missions were organized to become acquainted with postwar innovations and to renew a long-standing collaboration with American firms. The prevalent approach was critical, alternating admiration with negative observations and realistic evaluations regarding the quality and cost effectiveness of American solutions in the Fiat context. Fiat had no intention of revolutionizing its production methods. The company was exceptionally proud of its record, and adherence to the American model was interpreted in terms of perfecting its organization and plants, not in replacing them. In those years Fiat, whose development had been progressing along specific lines since the 1920s, refused to be distracted by the American dream. 'Besides unfolding over a longer period of time, the transfer of the Fordist production model was selective rather than merely imitative: At least during the initial stage, "mass production" was introduced soberly and patiently in Turin.'[65] For Fiat technicians, the American model was the natural productive ideal, but it was mainly regarded as an additional opportunity to improve and perfect the established Fiat tradition, which had been developed through ongoing comparisons with American techniques.

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[63] ZEITLIN/ HERRIGEL, Introduction; BORIS SHPOTOV, Ford in Russia from 1909 to World War II, in: Ford, 1903–2003. The European History, ed. by HUBERT BONIN/ YANNICK LUNG/ STEVEN TOLLIDAY, Paris 2003, p. 505-529; YVES COHEN, The Soviet Fordson. Between the Politics of Stalin and the Philosophy of Ford, 1924-1932, in: ibid., p. 531-558.

[64] Some important insights on the cultural and political climate of postwar Czechoslovakia can be found in BRADLEY ABRAMS, The Struggle for the Soul of the Nation. Czech Culture and the Rise of Communism, Oxford 2004, p. 88-138 and 156-177.

[65] BIGAZZI, Mirafiori, p. 269 (author's translation).

III. Expert Networks between National Loyality and Internationalism

DAGMARA JAJEŚNIAK-QUAST

POLISH ECONOMIC CIRCLES AND THE QUESTION OF THE COMMON EUROPEAN MARKET AFTER WORLD WAR I*

1. Pan-Europe

During the period after World War I, after 123 years of division and foreign rule, Poland primarily focused on the reconstruction of the state as well as on uniting politically, economically and culturally the three parts it had been divided into. Poland, resurrected as the Second Republic, was at first a parliamentary democracy which from 1926 on increasingly exhibited authoritarian features. This process accelerated in 1935, after a new constitution had been passed and Marshal Józef Piłsudski had deceased.[1] The economic system underwent a similar change. Increasingly, the until then formally free market economy became the target of state intervention.[2]

Despite the tremendous efforts to tackle the national tasks, which after repeated economic crises resulted in economic nationalism,[3] people who intended to take things one step further – giving up the nation state in

* I am grateful to Katrin Steffen, Martin Kohlrausch and Stefan Wiederkehr for their comments and suggestions, and to Agnieszka Skwarek for her editing.

[1] Józef Piłsudski (1867–1935) was chief of state (1918–22), 'first marshal' (from 1920) and the authoritarian ruler of the Second Polish Republic (1926–35). From the middle of World War I onwards, he had a major influence on Poland's politics and was an important figure on the European political scene.

[2] JAN KOFMAN, Die nationale Wirtschaftspolitik der Zweiten Republik Polen (1918 bis 1939), in: Für eine nationale Wirtschaft. Ungarn, die Tschechoslowakei und Polen vom Ausgang des 19. Jahrhunderts bis zum Zweiten Weltkrieg, ed. by ÁGNES POGANÝ/ EDUARD KUBŮ/ JAN KOFMAN, Berlin 2006, p. 135-167, p. 135.

[3] For the question of economic nationalism in the Second Republic of Poland as well as for the whole region of East Central Europe, see KOFMAN, Die nationale Wirtschaftspolitik; HELGA SCHULZ, EDUARD KUBŮ, History and Culture of Economic Nationalism in East Central Europe, Berlin 2006.

favour of a Pan-European Union – can be found primarily in business and economic circles. The existence of these circles reveals a field of tension in Poland in those days between protectionist economic theorists and supranationally thinking politicians and idealists. Here we might risk the thesis that it was economic experts who were among the driving forces towards European integration also in Poland in the interwar period.[4] Regarding the question which direction economic policy should take, the Pan-European circles were in favour of boosting export and connecting Poland's economy more strongly with the world market, as well as of industrializing the country.

This article deals with the reception of the idea of a united Europe and a common market by Richard Nikolaus Coudenhove-Kalergi (1894–1972)[5] in Poland. Of course, Coudenhove-Kalergi's idea of a united Europe is not the only vision of this kind that existed during the interwar period. French Prime and Foreign Minister Aristide Briand's Europe plan from 1929 must also be mentioned as a prominent example.[6] Nevertheless, Coudenhove-Kalergi's idea of Pan-Europe was one of the first plans for a united Europe and encompassed extensive ideas on economics, technology and infrastructure. Furthermore, it was a non-state initiative which in contrast to similar ideas was not only of an idealistic nature but also suggested pragmatic and, most importantly, economic-political solutions for a continent ravished by war. As one thesis states, it was these two aspects – being non-state and its professionalism regarding Pan-Europe's economic questions – that made it possible to transfer these ideas to Poland. For, in contrast to state actors,

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[4] Claudia Kraft concludes that the European and Polish efforts in support of the international standardization of regulations in the field of trade and business law after World War I show a strong will to integrate, despite the protectionist tendencies of those days. See CLAUDIA KRAFT, Europa im Blick der polnischen Juristen. Rechtsordnung und juristische Profession in Polen im Spannungsfeld zwischen Nation und Europa 1918-1939, Frankfurt am Main 2002, p. 63, 66, 322.

[5] On Pan-Europe and Coudenhove-Kalergi, see JÜRGEN ELVERT, Die europäische Integration, Darmstadt 2006, p. 29-30; RICHARD FROMMELT, Paneuropa oder Mitteleuropa. Einigungsbestrebungen im Kalkül deutscher Wirtschaft und Politik 1925-1933, Stuttgart 1977, p. 11-16; VANESSA CONZE, Richard Coudenhove-Kalergi. Umstrittender Visionär Europas, Zürich 2004; OTTO VON HABSBURG, Die Paneuropäische Idee. Eine Vision und Wirklichkeit, Wien 1999.

[6] See for example KAROL FIEDOR, Niemieckie plany integracji Europy na tle doktryn zjednoczeniowych 1918–1945, Wrocław 1991, p. 138-227; VANESSA CONZE, Das Europa der Deutschen. Ideen von Europa und Deutschland zwischen Reichstradition und Westorientierung (1920-1970), München 2005; VANESSA CONZE, Reich – Europa – Abendland. Zur Pluralität deutscher Europaideen im 20. Jahrhundert, in: Vorgänge. Zeitschrift für Bürgerrechte und Gesellschaftspolitik 40 (2008), p. 60-69; GUIDO MÜLLER/ VANESSA CONZE, Zwischen Rhein und Donau, in: Journal of European Integration History 5 (1999), p. 17-47.

economists and entrepreneurs were active in the context of a 'scientific community' already before 1918.[7] The second, third and fourth Pan-European Congresses were almost exclusively dedicated to economic questions (1930 in Berlin, 1932 in Basel and 1935 in Vienna).[8]

Coudenhove-Kalergi considered Pan-Europe a 'political and economic alliance of all states, from Poland to Portugal, to form a confederation'.[9] He did not consider the Soviet Union and Great Britain to be parts of continental Europe, and they were excluded from the association. Coudenhove-Kalergi deemed Pan-Europe the only possibility to save Europe, to secure peace, to work against communism and to resist the U.S.A.'s economic imperialism. In this context, holding a European conference was seen as a first step towards the realization of the Pan-European concept. This was supposed to be followed by an obligatory arbitration and guarantee treaty and finally by the establishment of a European customs union.[10]

In 1923, Coudenhove-Kalergi founded the Pan-European Union by sending his book *Pan-Europe* to addressees around the world and seeking comrades-in-arms.[11] Only one month later, Coudenhove-Kalergi received more than one thousand applications by people who were ready to join the Pan-European Movement. The first Congress of the Pan-European Union was in Vienna three years later, in October 1926. Coudenhove-Kalergi's book sold more than sixteen thousand copies in 1926 alone and thus counted among the best-selling publications in those days. Coudenhove-Kalergi achieved a great success when Aristide Briand accepted the honor-

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[7] See KATRIN STEFFEN/ MARTIN KOHLRAUSCH, The limits and merits of internationalism. Experts, the state and the international community in Poland in the first half of the twentieth century, in: European Review of History 16/5 (2009), p. 715-737; MARTIN KOHLRAUSCH, Technologische Innovation und transnationale Netzwerke. Europa zwischen den Weltkriegen, in: Journal of Modern European History 6/2 (2008), p. 181-195; on the role of Polish chemists in the 'scientific community', see KATRIN STEFFEN, Wissenschaftler in Bewegung. Der Materialforscher Jan Czochralski zwischen den Weltkriegen, in: Journal of Modern European History 6/2 (2008), p. 237-261; on the role of Polish jurists, KRAFT, Europa im Blick, p. 13, 60.

[8] KRZYSZTOF RUCHNIEWICZ, Paneuropa hr. Richarda Coudenhove-Kalergiego a Polska, in: Polska wobec idei integracji europejskiej w latach 1918-1945, ed. by MIECZYSŁAW WOJCIECHOWSKI, Toruń 2000, p. 45-63, p. 50.

[9] RICHARD NIKOLAUS COUDENHOVE-KALERGI, Pan-Europa, Wien 1923, p. 17 (author's translation).

[10] VERENA SCHÖBERL, 'Es gibt ein großes und herrliches Land, das sich selbst nicht kennt … Es heißt Europa.' Die Diskussion um die Paneuropaidee in Deutschland, Frankreich und Großbritannien 1922–1933, Berlin 2008, p. 47.

[11] COUDENHOVE-KALERGI, Pan-Europa.

ary presidency of the Union in 1927.[12] In 1928, the Pan-European Union had between six and eight thousand members across Europe.[13] However, there were hardly any members of governments among them. Most members belonged to the social, political and economic elites; they were writers, artists, public officials and politicians.[14] Furthermore, the clear interest of business circles in Pan-Europe should not be underestimated, which is reflected most of all in the movement's financial resources. At first, Coudenhove-Kalergi's private capital, proceeds from the sales of his books and the income of his wife, the actress Ida Roland (1881–1951), served as an essential financial basis. However, these funds alone were not sufficient and the movement depended on donations and support, most of which came from German business circles as well as from some European governments. The Hamburg financier Max Warburg donated sixty thousand gold marks a year in the first three years of the movement.[15] Among the German entrepreneurs financing Pan-Europe, Richard Heilner from the Deutsche Linoleumwerke and Robert Bosch were the most important. In 1930, Bosch established the Society for the Support of Pan-Europe (Pan-Europa Förderungsgesellschaft) in Zurich. Via this society, Pan-Europe also received donations from entrepreneurs such as Carl von Siemens and Adam Opel as well as from Hermann Bücher, Carl Duisberg and Wilhelm Kalle, from the Rütgerswerke Berlin and the Berliner Handelsgesellschaft. Moreover, bankers from Deutsche Bank and Dresdner Bank, Mendelssohnbank and Darmstädter Nationalbank supported the movement.[16] The Pan-European Union was also subsidized by the Austrian government as well as by the Baltic states, Romania, Czechoslovakia and France.[17]

Coudenhove-Kalergi's idea of Pan-Europe was of a temporary nature, being only the first step on the way towards a World Republic. Furthermore, the laicism of the united societies, an anti-state attitude, separating the nation from the state and, most of all, peace were fundamental features of this idea.[18] All supporters of this vision considered nationalism the main enemy of a united, confederate Europe, given the fact that precisely the

[12] SCHÖBERL, Die Diskussion um die Paneuropaidee, p. 47, 52.

[13] ANITA ZIEGERHOFER-PRETTENHALER, Botschafter Europas. Richard Nikolaus Coudenhove-Kalergi und die Paneuropa-Bewegung in den zwanziger und dreißiger Jahren, Wien 2004, p. 104.

[14] SCHÖBERL, Die Diskussion um die Paneuropaidee, p. 52.

[15] JERZY CHODOROWSKI, Osoba ludzka w doktrynie i praktyce europejskich wspólnot gospodarczych, Poznań 1990, p. 111.

[16] SCHÖBERL, Die Diskussion um die Paneuropaidee, p. 55-56.

[17] ZIEGERHOFER-PRETTENHALER, Botschafter Europas, p. 114-115.

[18] CHODOROWSKI, Osoba ludzka, p. 104.

interwar period was a peak in the history of European and economic nationalism – and the Polish state was no exception.[19] Thus, in the reborn nation state of Poland, a tension developed between national interests and the intended European Union. The history of Pan-Europe in Poland shows this tension very clearly. The idea of Pan-Europe propagated a 'United States of Europe', which state agencies such as the Foreign Ministry considered to be the greatest threat to the newly achieved sovereignty. For the Polish state, which had border conflicts with almost all neighbouring countries, the revision of the Treaty of Versailles, including the questioning of borders which Coudenhove-Kalergi propagated, was a thorn in its side. Furthermore, the Pan-European Movement considered the interests of big economic organizations to be superior to those of small states, something which in Poland only a small group of experts was ready to do. Still today, some right-wing circles consider Polish supporters of the Pan-European Union to have been traitors of their country.[20]

Furthermore, the idea of Pan-Europe was based on the ideology of universalism. Its supporters came from different social classes and were representatives of different religions. In Poland also, the supporters of the Pan-European idea were connected by their fascination for the different aspects of universalism, such as Jewish, Christian, socialist, Roman, Germanic or Freemason universalism.[21] Coudenhove-Kalergi was himself a high-ranking Freemason and member of the Viennese lodge Humanitas. This lodge was the first Austrian lodge to be founded in 1871 after the Austrian-Hungarian Compromise of 1867.[22] After an initiation ritual in December 1921, Coudenhove-Kalergi was finally accepted as a member of the Viennese lodge. As his reason for joining the lodge, he gave his origins, that is, his European, noble-born father and Japanese, bourgeois-born mother. Simply for this reason he considered himself a cosmopolitan 'with the widest possible tolerance towards foreigners and everything foreign, without the slightest national or social prejudices'.[23] Due to first international criticism that labelled the Pan-European Movement as being of

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[19] STEFANIE ZLOCH, Polnische Europa-Ideen und Europa-Pläne zwischen den beiden Weltkriegen, in: Europas Platz in Polen. Polnische Europa-Konzeptionen vom Mittelalter bis zum EU-Beitritt, ed. by CLAUDIA KRAFT/ KATRIN STEFFEN, Osnabrück 2007, p. 157-180, p. 157.

[20] See HENRYK PAJĄK, Piąty rozbiór Polski, Lublin 1998; PRZEMYSŁAW WAINGERTNER, 'Kosmopolici', 'obcy agenci', 'zdrajcy'. Ze stereotypu wolnomularstwa w II Rzecz-pospolitej, in: Ars Regia 3/4 (1994), p. 97-110.

[21] CHODOROWSKI, Osoba ludzka, p. 35.

[22] ZIEGERHOFER-PRETTENHALER, Botschafter Europas, p. 50.

[23] Quoted in ibid., p. 51 (author's translation).

Freemason nature, already in 1926 Coudenhove-Kalergi left the lodge in order to keep the Pan-European Movement neutral. He made his membership in the Freemason lodge public only in 1966 in his autobiography *A Life for Europe*.[24]

Coudenhove-Kalergi was most of all fascinated by Jewish universalism, which the growing anti-Semitic movement regarded as dangerous. In the eyes of some contemporary commentators in Poland, the Freemasons were identified as being Jewish, and as a consequence of anti-Semitic tendencies they were irrationally rejected even by intellectual circles.[25] As everywhere, the biggest target group of the Masonic movement in Poland was the middle class. However, the Polish middle class was quite weak at the time and many Freemasons were thus recruited from the assimilated Jewish bourgeoisie. Simply for this reason, many representatives of this class and religion were affiliated with the Polish Masonic movement. With the mood in Poland becoming increasingly anti-Jewish, the Freemasons also came under attack, most of all from the right-wing clerical milieu. In this context, different aspects were mixed up. On the one hand, these were internal social, economic and class conflicts. On the other, there was lacking or insufficient international support for the newly created state. This mixture of dissatisfaction and social conflict was the basis for the acts of violence against groups which in the eyes of some contemporaries represented the 'hated' social classes who were active at the international level – as was the case with most members of the Polish lodge.[26]

The Polish Freemason and delegate to the League of Nations, Szymon Askenazy (1866–1935), experienced this most strongly when dissatisfaction with the League of Nations' activities in Poland was vented on him and 'international Jewry'.[27] Askenazy became the target of anti-Semitic attacks primarily when the League of Nations did not support Poland during the Polish-Soviet War of 1919–20. Many Freemasons were confronted with the accusation of establishing too close a friendship with their 'brothers' from foreign countries, of being too open towards foreign influence, of introducing unrealistic, foreign concepts to the Polish mind and of offering standard answers to the country's unique social problems.[28] Another Polish Freema-

[24] Ibid, p. 57.

[25] See LUDWIK HASS, Wolnomularstwo w Polsce współczesnej, in: Zeszyty Historyczne 118 (1996), p. 197-206, p. 205; PRZEMYSŁAW WAINGERTNER, Wolnomularstwo II Rzeczpospolitej w oczach współczesnych, Łódź 1999, especially chapter 5: 'Judeomasoneria' – wolnomularstwo a Żydzi, p. 83-98.

[26] LEON CHAJN, Polskie wolnomularstwo 1920-1938, Warszawa 1984, p. 245.

[27] ZLOCH, Polnische Europa-Ideen, p. 169.

[28] See CHAJN, Polskie wolnomularstwo, p. 156.

son and cellist, Bronisław Huberman (1882–1947), also felt the force of this anger when he became more and more committed to the Pan-European Movement. Huberman, the later founder of the Palestinian Symphony Orchestra, was very much committed to European unification. After his four-year stay in the U.S.A. (1921–25), Huberman promoted the United States of America as a model for the future of the European continent.[29]

The role of European Freemasons in the knowledge transfer and the strived-for integration process in Europe should not be underestimated. In the first half of the twentieth century, it was they who launched most initiatives to further Europe. Even the foundation of the League of Nations and its reforms were sometimes considered a Freemasons' initiative.[30] The foundation of the United States of Europe – Pan-Europe – also goes back to the European Masonic movement.[31] However, from the side of the Polish state, all these projects were received with great caution, if not scepticism. For example, only after a few months of its existence, many Polish politicians perceived the League of Nations as not being well-meaning towards Polish interests.[32] The reason for this scepticism was always the same: The Polish state was worried about loosing its newly attained sovereignty.

Coudenhove-Kalergi was fascinated by the rapid technological progress of the time, and he considered technology a function of united Europe, which was to be steadfast against any political or economic crisis.[33] Thus, the Movement supported Europe's integration mainly in the areas of technology, infrastructure and economy in order to facilitate increased contacts between the nations. But the development of many new nation states after World War I entailed the erection of new borders, which had a negative influence on communication and trade in Europe. On the European continent after World War I, the rapid technological progress and the expanded communication thus faced new, mostly political, barriers.

The supporters of the Pan-European Union wanted to counter this phenomenon through economic unification, 'because a Europe which is torn apart by artificial customs barriers must in the long run be able to compete with the planet's great economic areas, most of all North Ame-

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[29] ANDRZEJ BORZYM/ JEREMI SADOWSKI, Polscy Ojcowie Europy, Warszawa 2004, p. 84; see also BRONISŁAW HUBERMAN, Mein Weg zu Paneuropa, Wien 1925 as well as BRONISŁAW HUBERMAN, Vaterland Europa, Berlin 1932.

[30] See: Die Freimaurerei und der Völkerbund, in: Die Friedens-Warte. Journal of international peace and organization 22 (1920), p. 244-245.

[31] CHODOROWSKI, Osoba ludzka, p. 80.

[32] ZLOCH, Polnische Europa-Ideen, p. 169.

[33] RICHARD NIKOLAUS COUDENHOVE-KALERGI, Apologie der Technik, Leipzig 1922, p. 23.

rica'.[34] Thus in Poland, apart from the intellectuals, the supporters of the idea of a united Europe were mostly those business and economic circles for which every obstacle to free trade and the flow of goods, capital and human beings was disadvantageous. Until now, the literature cites most of all intellectuals, aristocrats, left-wing activists and students as supporters of the Pan-European Union in Poland.[35] However, it rarely takes into account the connection between Pan-Europe and those Freemason and business circles from which the experts were recruited as well as the networks they used for communication within Europe. However, particularly for the Poles, being members of a nation without a state of its own for a long time, non-state actors and the development of an 'international society' of scientists, economists and entrepreneurs were the foundation of European thought.[36]

2. Economic Circles

In view of the above, economic and scholarly circles as well as the Freemasons counted among the greatest supporters of the comparatively small section of the Pan-European Union in Poland. The connection to business was also very important for Pan-Europe's international communication. This networking already becomes apparent in the person of the chairman of the Polish section of the Pan-European Union. Aleksander Lednicki (1866–1934), a lawyer and since March 1917 chairman of the liquidation commission of the Polish Congress at the Russian provisional government, became the leading figure of the Pan-European Movement in Poland and was a member first of the Moscow lodge and later of the Great National Lodge of Poland (*Wielka Loża Narodowa Polski* – WLN).[37] As a lawyer, he represented many big foreign investors in Poland. Among other things he was the founder and chief executive of the Lloyd Poland Public Limited Company, chairman of the American Bank in Poland and strongly involved in the take-over of the textile manufactures in Żyrardów by a French syndi-

[34] RICHARD NIKOLAUS COUDENHOVE-KALERGI, Kampf um Paneuropa, 3 vols, Wien 1928, p. 5 (author's translation).

[35] See for example WŁODZIMIERZ BORODZIEJ/ BŁAŻEJ BRZOSTEK/ MACIEJ GÓRNY, Polnische Europa-Pläne des 19. und 20. Jahrhunderts, in: Option Europa. Deutsche, polnische und ungarische Europapläne des 19. und 20. Jahrhunderts, ed. by WŁODZIMIERZ BORODZIEJ et al., vol. 1, Göttingen 2005, p. 43-134, p. 95.

[36] KRAFT, Europa im Blick, p. 10.

[37] See LUDWIK HASS, Masoneria Polska w XX wieku. Losy, loże, ludzie, Warszawa 1996, p. 209.

cate.[38] A second example of the extended networking among supporters of Pan-Europe, Freemasons and Polish business circles is another member of Pan-Europe's Polish section, Hipolit Gliwic (1878–1943). This economist and mining engineer launched his career in St Petersburg, where he worked as a lecturer at the mining institute for many years. There he became a member of the St Petersburg lodge. In the years 1919–25, he worked as a diplomat in Washington, D. C. Then he held the position of a director at the Polish Ministry of Industry and Trade. Very often he took part in meetings of the League of Nations. But most of all he played a very important role in Polish business. He held a number of board positions, among others at the United Iron and Steel Works and Mines Modrzejów-Handtke, at the Commerce Bank and in the Association of Mining-Iron and Steel Works Interests.[39]

Polish business circles considered Pan-Europe an economic organism in the context of a customs union. They demanded the abandoning of passports and visas within Europe and the standardization of railroad tariffs in order to relieve the economy and defend against economic crises. One aspect of this way of thinking in Western Europe was the attempt to integrate the individual economic branches, such as the development of the steel cartel in 1926.[40] During the interwar period, many international cartels had developed. Besides the iron and steel cartel, there were cartels for coal, chemicals and timber. The cartels could adopt different measures for controlling prices, production or sales. Sometimes only export was controlled. The cartel directors often argued that they acted not only to the benefit of their members, but also to the benefit of society as a whole. This is an argumentation which is mostly connected to state authorities and the situation indicates an interesting tension between the state and the cartel: Who decides what is in the interest of society?[41] There also existed a similar tension between the supporters of Pan-Europe and the Polish state. Those economists and entrepreneurs who adhered to the Pan-European Movement supported the growing networking among inner-European industrial branches. This kind of European rationalization was supposed to

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[38] JAN TOMBIŃSKI, Początki ruchu paneuropejskiego w Polsce, in: Z dziejów prób integracji europejskiej od średniowiecza do współczesności, ed. by MICHAŁ PUŁASKI, Kraków 1995, p. 83-93, p. 85.

[39] See CHAJN, Polskie wolnomularstwo, p. 154.

[40] See CLEMENS A. WURM, Business, Politics and International Relations. Steel, Cotton and International Cartels in British Politics, 1924–1939, Cambridge 1993.

[41] See BIRGIT KARLSSON, Industrial Cartels and Monopolies in Sweden before 1950. Towards a regulated market. Wood, steel and iron 1919–1939. Paper for the World Economic History Congress 2009 Utrecht, p. 2: http://www.wehc2009.org/programme.asp?find=Karlsson, accessed 16 August 2009.

pave the way towards the gradual horizontal and vertical reduction of inner-European customs.[42]

On the other hand, the Polish state, whose national economy was to a great extent based on agriculture and which was only beginning to build up an industry of its own, was afraid that abandoning the customs barriers might damage this process. Only the improvement of the economic situation would help the idea of a common market take hold in Poland. After trade contracts with France and Great Britain had been signed on 6 February 1922 and 26 November 1923, and a change in U.S. foreign policy after 1924 led to an increased flow of loans and investments into Poland for the first time, cooperation within Europe was perceived more positively.[43] However, the economists were not the only supporters of Pan-Europe in Poland. One great friend of this idea was the already mentioned Bronisław Huberman. He also considered higher wages, lower prices, free competition and thus a higher quality of products and welfare, as well as a higher living standard to be beneficial effects of the Pan-European Movement.[44]

More than two thousand people from twenty-four countries attended the first Pan-European Congress held in Vienna in 1926. Poland was represented by Aleksander Lednicki. Among the numerous members of the Polish delegation there were also the Socialist Władysław Landau, who represented the Polish youth, Zygmunt Kaczyński, a priest and member of the Sejm for the Christian-National Party, Marian Dąbrowski, member of the People's Party 'Piast' (PSL 'Piast') and at the same time chief editor of the Krakow newspaper *Ilustrowany Kurier Codzienny*, as well as Bronisław Huberman. The Polish delegation was above all concerned with the issue of customs duties. It maintained that abandoning the customs barriers would be impossible as long as the border issues had not been resolved and there was still danger of being attacked by a foreign state. Here, the Poles primarily had Germany in mind, but also Russia. Furthermore, the Polish delegation expressed its support for the founding of a professional international committee of experts which was supposed to deal with the specific problems of European integration. Marian Dąbrowski, Tadeusz Dzieduszycki, Feliks Bocheński, Henryk Schoenefeld, Feliks Gross and Władysław Landau moreover contributed to the work of the commission for intellectual cooperation.[45] The reaction of the Polish press to the congress was at first well-meaning and confident. First and foremost, the newspaper *Głos*

[42] COUDENHOVE-KALERGI, Kampf um Paneuropa, p. 7.

[43] RUCHNIEWICZ, Paneuropa, p. 55.

[44] Ibid., p. 57.

[45] Ibid., p. 58.

Prawdy from Piłsudski's camp reported extensively from the congress.[46] It is characteristic that among the three main political tendencies (nationalist-conservative, people's, and socialist) that had established themselves in Poland since the end of the 1870s,[47] it was the socialists who were most interested in the idea of a Pan-Europe.[48] (Again, this must be traced back to socialist universalism.) The movement seemed to offer the best possibility to reconcile Polish interests with the European idea. The Polish observer of the congress, Tadeusz Dzieduszycki, stated that the evolution towards a new Europe had to go hand in hand with the evolution towards a new Poland.[49] Even Piłsudski is said to have sent Lednicki to Vienna.

The timing of this congress is very important for the question whether or not the head of state agreed with the Pan-European idea as well as the question concerning his relationship towards the Freemasons. Piłsudski's position towards the Freemasons and towards the Pan-European Union – similar to his domestic and foreign policies – was subject to a breathtaking evolution from one end of the spectrum to the other.[50] It is generally accepted that in the early days of the Polish state, particularly between 1919 and 1921, Piłsudski tried to use these circles in the fight for the future borders of the state, which explains his great sympathy for the Masonic movement. In this context, he counted on the Freemasons' great influence at the Paris Peace Conference and generally at the international level. Similarly, he used these connections before and after his military coup in May 1926, that is before he was reelected as head of state by the Sejm, as a way of legitimizing this non-democratic takeover of power on the international stage. He moreover needed the support of influential politicians, and indeed many Freemasons were members of his later government. Apart from Prime Minister Kazimierz Bartel, August Zaleski, Hipolit Gliwic, Wacław Makowski, Witold Staniewicz and Stanisław Jurkiewicz were recruited from these circles. The change in the marshal's politics towards authoritative rule, most of all in the years 1929–30, went hand in hand with a change in his position towards the Freemasons, which turned into nothing short of open confrontation.[51]

After the foundation of the Pan-European Union's first Austrian section with its seat in Vienna, similar sections were founded in Czechoslovakia,

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[46] Ibid., p. 57.

[47] BORODZIEJ/ BRZOSTEK/ GÓRNY, Polnische Europa-Pläne, p. 74.

[48] TOMBIŃSKI, Początki ruchu paneuropejskiego, p. 84.

[49] Quoted in ZLOCH, Polnische Europa-Ideen, p. 171.

[50] See LEON CHAJN, Wolnomularstwo w II Rzeczypospolitej, Warszawa 1975, p. 414.

[51] Ibid., p. 421.

France, Germany and Great Britain. Despite initial difficulties in the founding of a similar section in Poland, in Warsaw an organizational committee of the Pan-European Union was also established on 2 February 1927. Aleksander Lednicki became its chairman. Further members were Senator Józef Buzek, deputy marshal of the Sejm, Hipolit Gliwic, former Senator Witold Kamieniecki, Senator Stanisław Posner, Count Wojciech Rostworowski, Colonel Walery Sławek, Dr Mieczysław Szawlewski and Minister Józef Targowski. Also, many representatives of the political left were members of this section, such as the Socialist Mieczysław Niedziałkowski, representatives of the Peasants' Party such as Stanisław Thugutt for PSL 'Wyzwolenie', who at the same time was the chief editor of the magazine *Tydzień*, and Marian Dąbrowski for PSL 'Piast'. Bronisław Huberman was present as a non-member of a political party. Representatives of the moderate right wing, such as Zygmunt Kaczyński as well as members of the Polish diplomatic service such as former Minister of Foreign Affairs Aleksander Skrzyński, were also among the members of the movement.[52]

3. Freemasons

As we have seen, in the time of its existence the Polish Pan-Europe section encompassed prominent members of different political orientations. Apart from economic or social interest groups, many members of Freemasons' lodges were active in the Polish section of Pan-Europe. Similar to Pan-Europe, the Freemasons as an organization connected representatives of the intellectual, political and business elites.[53] Still today, the question of the Freemasons' influence on Poland's domestic and foreign policy and thus on the activities of the Polish section of Pan-Europe in the interwar period is heatedly debated by right-wing politicians and populists. It is very difficult to resolve this question because the Polish Freemasons were never legalized. On the other hand, however, they were not explicitly banned until autumn 1938 either.[54] Accordingly, they led a semi-public life without the status of a legal entity and without being entitled to property or the right to actively publish.[55] Furthermore, in comparison to other countries, the Freemasons in Poland were very weak in numbers. According to the world

[52] ZLOCH, Polnische Europa-Ideen, p. 172.

[53] WAINGERTNER, Wolnomularstwo, p. 2.

[54] On 22 September 1938, the Polish president, Ignacy Mościcki, announced a decree on the dissolution of the associations of Freemasons in Poland.

[55] WAINGERTNER, Wolnomularstwo, p. 12.

press of the Masonic movement, there was just one Freemason per one hundred thousand inhabitants and one lodge per three million Poles.[56]

However, if we compare the rather small number of supporters of the Masonic movement in Poland at that time (the number of members at no time exceeded four hundred)[57] to the comparably large number of Freemasons among the members of Pan-Europe's Polish section, there is some reason to assume a dense personal network between the two organizations. Although the Polish Freemasons were a comparatively small group, some right-wing politicians of the time attributed great influence to them – not only regarding Pan-Europe, but also Poland's domestic and foreign policy. Leon Chajn identifies several arguments that were used to serve as 'objective reasons' to corroborate these claims, the most important being the delayed development of Polish capitalism, the insufficient development of the Polish middle class and the usually overestimated influence of the allegedly dangerous Jewish bourgeoisie. Furthermore, compared to other countries, the Polish lodges were very elitist. Polish Freemasons demanded a very high degree of professional qualification from their candidates, and indeed their members occupied most of the top positions in business and at state institutions. Thus, often Polish candidates found it easier to become members of foreign lodges than of a Polish one. However, the most important reason why some perceived these circles to have great influence on the fate of Poland seems to be the Freemasons' high degree of secrecy and discretion. Still today, it is very difficult to clearly identify individual members.[58] This secrecy facilitated the development of countless myths and prejudices against Polish Freemasons and thus indirectly also against the Pan-European Movement.

However, Pan-Europe was never a Freemasons' organization. Similar to the case of the Polish Rotary Club, the fact that many representatives of the Polish section of Pan-Europe were members of the Masonic movement resulted in Pan-Europe being considered a representative body and basis of staff recruitment for the Freemasons, and vice versa.[59] A very active supporter of the idea of Pan-Europe in Poland, the economist, politician and Minister Hipolit Gliwic, was at the same time a very active Freemason. At two congresses of the International Association of Freemasons (*Association Maçonnique Internationale* – AMI) in Luxembourg in 1934 and in Prague

[56] At that time, in Czechoslovakia there were 22 Freemasons per 10,000 inhabitants, in Bulgaria 11, in Yugoslavia 8, in Germany and France 120, in Great Britain 990 and in the U.S.A. 2,600. See CHAJN, Polskie wolnomularstwo, p. 245.

[57] WAINGERTNER, Wolnomularstwo, p. 13.

[58] CHAJN, Polskie wolnomularstwo, p. 245, 254, 259.

[59] WAINGERTNER, Wolnomularstwo, p. 18.

in 1936, he represented the Polish lodge and in 1936 became the representative of the Polish Masonic movement at the federation of Freemason authors and publishers (Philateles Society). Marian Dąbrowski, the independence activist, author on military affairs and husband of the writer Maria Dąbrowska, was hence not the only 'prominent' Freemason involved in the Pan-European Movement. Among them were also the Socialist Stanisław Posner and Walery Sławek, the founder of the block of non-party members which supported the government of Józef Piłsudski (*Bezpartyjny Blok Współpracy z Rządem* – BBWR) and Polish prime minister for three terms of office in the 1930s.[60]

On the other hand, among the supporters of Pan-Europe were also figures of public life who did not show a kindly attitude towards the Freemasons, but still maintained close contacts with their representatives. Prominent among them was Zygmunt Kaczyński (1894–1953), who became chief of the editorial staff of the Catholic press agency in Poland after 1930. From 1933 onwards he was the representative of the Polish Episcopate on Freemason affairs.

4. The Professional Network

The professional group biggest in numbers among the Polish Freemasons was scientists, followed by public officials and – in the early period – members of the armed forces. Many Polish Freemasons were jurists, physicians, engineers, bankers and entrepreneurs.[61] The professional structure of the Polish section of Pan-Europe was similar.

Władysław Landau (1901–33) was a public official at the Treasury and the director of the scientific department of the Institute of Social Economy (*Instytut Gospodarstwa Społecznego*). Apart from numerous writings on the problems of the working class, he attained fame as the initiator and member of the editorial staff of the *Diary of the Unemployed*.[62] Feliks Bocheński also wrote about economic questions and after World War II worked for the International Bank for Reconstruction and Development.[63] Józef Buzek (1873–1936) resembled the other members of the Pan-Euro-

[60] Ibid., p. 37-39.

[61] Ibid., p. 14.

[62] See WŁADYSŁAW LANDAU, Ośmiogodzinny dzień pracy, in: Sprawy Robotnicze, no. 1, Warszawa 1927; WŁADYSŁAW LANDAU, Pamiętniki bezrobotnych, no. 1-57, Warszawa 1933.

[63] FELIKS BOCHEŃSKI, The economic structure of Poland, Birkenhead 1944; Foreign trade in Poland, ed. by FELIKS BOCHEŃSKI, London 1946.

pean section in Poland – he was a lawyer and an economist as well as a well-known statistician. He was the first director of the Central Statistical Office of Poland (GUS) from 1918 to 1929 and a member of a constitutional commission during his parliamentary work in the Sejm and Senate.

Tadeusz Dzieduszycki (1896–1976) supported the thesis of the necessity to increase the efficiency of the Polish economic system and is the best-known Polish representative of the utopia of technocracy.[64] He was deeply convinced that Poland's future would be decided at the economic level. According to Dzieduszycki, the social problems could only be solved by means of comprehensive scientific analysis and a common programme contrived by experts from different disciplines. For him, the professional network of Pan-Europe was such a platform. Another member of the scientific staff was Henryk Schoenefeld (1885–1951), a chemist and one of the outstanding authorities in the field of fat and oil technology.[65] After obtaining his Ph.D. from Zurich University, he worked in the fat and oil industry but, like many other members of the Pan-European Movement in Poland, he also continued work as a scientist and was engaged in research at the Department of Industrial Chemistry at the University of Liverpool. Thus, working and researching abroad was another important feature that characterized the Polish members of the Pan-European Movement.

Feliks Gross (1906–2006) graduated as a lawyer from Jagiellonian University in Krakow and became a lecturer there. Before the outbreak of World War II, he founded the School of Social Sciences (*Szkoła Nauk Społecznych*) in Krakow. He was a social and political activist, a committed and energetic labour lawyer, and a member of the prewar Polish Socialist Party (*Polska Partia Socjaldemokratyczna*). He held several positions at the League of Nations and the London School of Economics. During the war he fled to the United States, where he became a member of the Eastern European Planning Board. He continued his work as a scholar and lectured at New York University, the University of Wyoming and the University of Virginia as well as at the Universities of Florence, Paris, Rome and the College of Europe. Gross's Pan-European universalism was reflected not only in his biography as a Jewish, Polish and American sociologist, but also in his writing. He saw the U.S.A. as a model for Europe – a multiethnic state founded upon the principles of democracy. Gross's more than

[64] See WŁODZIMIERZ MICH, Tadeusza Dzieduszyckiego utopia technokratyczna, in: Annales Universitatis Mariae Curie-Skłodowska, Sectio K, vol. IV (1997), p. 59-65, as well as Stefan Rohdewald's contribution to this volume.

[65] See Journal of the American Oil Chemists' Society 28/10 (1951), p. 25.

twenty books and numerous articles address the possibility of different peoples and ethnic groups living in peace.[66]

The personal contacts between these scholars, within economic circles and among Freemasons were crucial for spreading the idea of Pan-Europe. The first Polish concept of the United States of Europe by Stefan Buszczyński goes back to this network. His study *La Décadence de l'Europe* was published in Paris as early as 1867, hence much earlier than Coudenhove-Kalergi's concept.[67] Inspired by the Freemasons, he envisioned a red cross in the sun surrounded by a ring as a coat of arms for Europe. Later, Coudenhove-Kalergi chose that same coat of arms for his Pan-European Movement. Furthermore, the members of the Polish section of Pan-Europe can be considered experts. Many of them held important positions in Poland's economy and at an early stage expressed their own ideas regarding European integration. Józef Buzek presented the concept for a federation they had developed as early as May 1919. He suggested the foundation of seventy federal states in Europe, each one with a number of inhabitants ranging from two hundred to five hundred thousand and with their own constitutions.[68]

5. Stranding

It was always problematic for the Pan-European Movement in Poland because those who supported the idea were too closely identified with Poland's powerful neighbours, Germany and Russia. When Coudenhove-Kalergi geared up efforts to gain the favour of German politics and even demanded to hand the 'corridor' over to Germany, this could no longer be compatible with Polish interests. Poland considered the German efforts to overcome the regulations of the Treaty of Versailles a striving for hegemony and a threat to its sovereignty.[69] This was the reason why already at the end of the 1920s the commitment of the Polish section of Pan-Europe waned. With increasing frequency, the Polish Foreign Ministry intervened

[66] See for example FELIKS GROSS, Citizenship and Ethnicity. The Growth and Development of a Democratic Multiethnic Institution, Westport 1999.

[67] STEFAN BUSZCZYŃSKI, La Décadence de l'Europe, Paris 1867.

[68] BORODZIEJ/ BRZOSTEK/ GÓRNY, Polnische Europa-Pläne, p. 88.

[69] See HANS LEMBERG, Mitteleuropa und Osteuropa. Politische Konzeptionen im Spiegel der Historikerdiskussion der Zwischenkriegszeit, and JAN KŘEN, Das Integrationsproblem in Ostmitteleuropa zwischen den beiden Kriegen, in: Mitteleuropa-Konzeptionen in der ersten Hälfte des 20. Jahrhunderts, ed. by RICHARD G. PLASCHKA et al., Wien 1995, p. 213-220 and p. 151-164; JÜRGEN ELVERT, Mitteleuropa! Deutsche Pläne zur europäischen Neuordnung (1918–1945), Stuttgart 1999, p. 111-166.

in the work of the section and urged its members to be careful and alert towards Coudenhove-Kalergi. Thus, the Polish supporters of the Pan-European Union tried to draw the attention of the Polish government even more directly to the economic questions this movement addressed. Accordingly, Jan Gawroński – the Polish ambassador in Vienna from 1933 to 1938 – argued that despite the conflict over political issues, the work of Pan-Europe might be economically profitable for Poland. He reckoned that incorporating independent economists from Poland would help the Polish economy without the danger of affecting the authority of the Polish government.[70] At this time, however, the Foreign Ministry's scepticism towards the Pan-European Movement had already grown to such a degree that the Pan-European Union's two congresses on economy in December 1933 and May 1934 were held without Polish participation.

Also, the controversies surrounding Aleksander Lednicki, the chairman of the Polish section of the Pan-European Union, who was regarded as being too close to the Russians, were not without influence on the Polish commitment to Pan-Europe.[71] His death in 1934 put an end to Poland's contribution to the Pan-European Movement. Lednicki committed suicide when – this time in the context of the Polish-French quarrel over economic issues and under the pressure of the ongoing economic crisis – he was repeatedly accused of being involved in the so-called Żyrardów affair,[72] and thus of serving foreign interests.[73]

6. Conclusion

I hope to have shown that despite Poland's nationally oriented economic policy during the interwar period, supporters of European economic integration can also be found. Especially Coudenhove-Kalergi's Pan-European idea fell on fertile ground in interwar Poland. The supporters of this idea

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[70] TOMBIŃSKI, Początki ruchu paneuropejskiego, p. 91.

[71] ZLOCH, Polnische Europa-Ideen, p. 172.

[72] At the beginning of the Second Republic, the textile works in Żyrardów near Warsaw were under state administration. After the reconstruction phase, this industrial location developed well economically. After a French consortium, in which Lednicki was involved, took over the Żyrardów works in 1923, however, problems began to arise. The ensuing cutbacks in production and subsequently unemployment were in part due to the general economic crisis. But state control agencies also uncovered numerous flaws in the management of the plants (the Żyrardów affair) and in 1936 the works again came under the control of the State Agricultural Bank.

[73] See ZYGMUNT WASILEWSKI, Proces Lednickiego. Fragment z dziejów odbudowy Polski 1915–1942, Warszawa 1924.

primarily came from economic circles, many of them were public officials and scholars, and the Freemasons played an important role in this movement. They often used non-state communication channels which were mostly based on aristocratic and lodge connections as well as on contacts between business people and scholars. For this reason, the manifestation of the movement in Poland must be considered a very elitist expert phenomenon.

For the representatives of Pan-Europe, a united Europe without any barriers to the free flow of goods, capital and human beings was the main goal. Furthermore, universalism as an ideology was an integral part of the movement. Therefore, economic and scholarly circles as well as Freemasons counted among the greatest supporters of the comparatively small section of the Pan-European Union in Poland. Professionalism, political differentiation and transnationalism, especially in working and researching abroad, were further important features of this network.

Nationalism was the main enemy for the supporters of the Pan-European Movement and this transnational network had to compete with increasing nationalism also in Poland. Thus, the state was clearly an obstacle with respect to the establishment of a common European market after World War I. Indeed, the Polish Foreign Ministry was very much interested in this movement, but did not consider it to be of any serious significance for Polish interests. The Pan-European Movement even became problematic for the Polish state since the idea of a united Europe was too strongly identified with Poland's powerful neighbours, Germany and Russia. This was the reason why as early as in the late 1920s, the commitment of the Polish section of Pan-Europe became less intensive. The time for a European economic union had simply not yet come, and the Polish elites were too concerned with Poland's internal and external problems and thus reluctant towards any ideas of integration.

Ingo Loose

How to Run a State

The Question of Knowhow in Public Administration in the First Years after Poland's Rebirth in 1918

1. Introduction and Theoretical Approach

Dealing with the topic of how to run and organize an entire state in the troublesome circumstances in which the young Polish democracy undoubtedly found itself right after World War I, my article confines itself to outlining some general questions rather than providing exhaustive answers to them. Therefore, I will proceed in two steps: First, I will give a short introduction addressing transformations in general and the transformation process in Poland during the first years after 1918 in particular. Second, I will pose the question, which role expertise and the recruitment of professional elites played in the development of Poland's civil administration. To illustrate this process, the former Province of Posen or the Wielkopolska region (*Województwo Poznańskie*), as it was called after 1918, shall serve as an example.

As it is commonly known, the Polish state was founded, or rather refounded, in November 1918 as the Second Polish Republic – 123 years after the third partition of Poland in 1795, in which the country disappeared from the maps of Europe. The preceding development leading up to this refoundation had begun at the latest already in 1916 with the creation of the Kingdom of Poland by Germany and Austria (in favour of recruiting Polish volunteer soldiers for the war against Russia) – although other, (much) earlier dates can be found in scholarly literature. With the surrender of the three partitioning powers and through the influence of President Woodrow Wilson on the European postwar order, an old dream of the Poles became true. To be more precise, one has to speak of a number of different dreams – including (although not limited to) nightmares among the national minorities – for the national Polish concepts before the war, which aspired to national independence, had been ridden with contradictions.

In terms of geography, and with regard to different social positions, the differences were significant. Moreover, in 1918 millions of people from different national minorities (Ukrainians, Germans and Jews) became Polish citizens, although this was not a long-nurtured dream for most of them (except for many Jews, who preferred to live under Polish than under Tsarist rule).[1] Together with the entire so-called 'organic work' (i.e. legal, non-revolutionary efforts directed towards Polish independence) after the brutally oppressed uprising in 1863, all these dreams of independence had in common that they did not focus on the real challenge, namely how and with whom to take over power and public organization from the partitioning powers in case the opportunity should arise.[2] It has not yet been made clear to what extent the politicization of Polish society before World War I contributed to the profound changes that unfolded after 1918. The real political development in Central Eastern Europe turned out to be quite different from the planning (and even more so from the dreams), and soon it became clear that elites and expertise were urgently needed in a much broader sense than the Poles themselves had anticipated in the 'organic' period prior to World War I.

Beyond doubt is the fact that the young Polish Republic had to cope with significant social and structural burdens, which were resolved only in part until 1939. The transformation was actually a twofold process: on the one hand, the breakdown of the political, social and economic systems of the partitioning powers during the war and on the other the (re)construction of the Polish state itself. Both processes took place simultaneously, which caused additional frictions – especially under the circumstances of the war and the postwar period.[3]

However, the main question is why and how Poland indeed succeeded in overcoming all these obstacles of knowhow and organization when it was confronted with three quite differently structured and developed territories,

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[1] For the Jews in independent Poland, cf. KATRIN STEFFEN, Jüdische Polonität. Ethnizität und Nation im Spiegel der polnischsprachigen jüdischen Presse 1918–1939, Göttingen 2004.

[2] M. B. [*sic*], O Polsce jaką ona jest, a jaką byśmy mieć chcieli, Warszawa 1916; JANUSZ KARWAT, Od idei do czynu. Myśl i organizacje niepodległości w Poznańskiem w latach 1887–1919, Poznań 2002. The title 'From idea to action' seems to be slightly inappropriate, for the question remains unresolved whether the political activism before 1918 was part of the Polish autonomy movement or a real political contribution to independence.

[3] The need for *ad hoc* decisions during and right after the war was later reinterpreted as a powerful source of learning for the future development of Poland. With regard to the persistence of a whole set of structural problems, however, such an interpretation remains doubtful. PIOTR DRZEWIECKI, Przez klęskę do naprawy, Warszawa 1924; KLAUS VON BEYME, Systemwechsel in Osteuropa, Frankfurt am Main 1994, p. 51-53.

with a high percentage of national minorities, militarily unsafe borders, mostly hostile neighbours and a largely devastated economy. What intellectual and political knowhow, then, what sorts of experts did the Polish state have at its disposal at the end of 1918 and which role did the question of the (national) legitimacy of expertise play?

In direct comparison with the significant number of scholarly works concerning the transformation process in Central Eastern Europe after 1989, it is rather astonishing to see that similar theories have only seldom been applied to comparable changes in history. This is true especially for Poland – as if right after the war the young republic could easily succeed and take over the public, social and economic structures of the partitioning powers, or even revert to the 'good old' Polish Republic of Nobles of the eighteenth century.[4] Correspondingly scarce is the number of scholarly works dedicated not only to the history of the Wielkopolska Uprising, but also to the parallel process of transformation.[5]

The whole undertaking, of course, was not only a cold, unemotional administrative task, but deeply embedded in a mission of national pride and honour: The task was not only to build and unify a national state; the process rather gained additional motivation by the shared expectation of Poland's neighbours that they just had to wait until the short-lived, so-called 'seasonal' Polish state (in German *Saisonstaat*[6]) would sooner or later automatically cease to exist.[7]

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[4] SZYMON HREBENDA, Transformacja systemowa w polskiej myśli politycznej XIX i XX wieku, in: Społeczno-polityczne aspekty transformacji ustrojowej, ed. by PIOTR DOBROWOLSKI/ JOACHIM LISZKA/ JANUSZ SZTUMSKI, Ustroń 2001, p. 59-72; JAN SZCZEPAŃSKI, Reformy, rewolucje, transformacje, Warszawa 1999; JANUSZ PAJEWSKI, Odbudowa państwa polskiego 1914–1918, Warszawa 1978; JERZY HOLZER/ JAN MOLENDA, Polska w Pierwszej Wojnie Światowej, Warszawa 1973; RUDOLF JAWORSKI, Handel und Gewerbe im Nationalitätenkampf. Studien zur Wirtschaftsgesinnung der Polen in der Provinz Posen (1871–1914), Göttingen 1986; Droga do niepodległości czy program defensywny? Praca organiczna – programy i motywy, ed. by TOMASZ KIZWALTER, Warszawa 1988.

[5] Besides the literature mentioned in footnote 4, the most comprehensive study from the interwar period is undoubtedly ZYGMUNT WIELICZKA, Wielkopolska a Prusy w dobie powstania 1918/19, Poznań 1919. The author already posed many of the questions raised here, but did not find any followers in Polish historiography.

[6] NORBERT KREKELER, Revisionsanspruch und geheime Ostpolitik der Weimarer Republik. Die Subventionierung der deutschen Minderheit in Polen 1919–1933, Stuttgart 1973; CHRISTIAN HÖLTJE, Die Weimarer Republik und das Ostlocarno-Problem 1919–1934, Würzburg 1958; VOLKMAR KELLERMANN, Schwarzer Adler. Weißer Adler. Die Polenpolitik der Weimarer Republik, Köln 1970.

[7] INGO LOOSE, Der Erste Weltkrieg als Eschatologie. Staatliche Einheit und Sinnstiftung in der Zweiten Polnischen Republik 1918–1939, in: Die Weltkriege als symbolische Bezugspunkte. Polen, die Tschechoslowakei und Deutschland nach dem Ersten und Zweiten Weltkrieg, ed. by NATALI STEGMANN, Prag 2009, p. 39-57.

With regard to the problems Poland faced at the end of 1918 and the beginning of 1919, the prognoses were indeed fairly bad, especially in the areas of administration and unification. The main obstacles were the differences and discrepancies between the formerly partitioned territories, which may have been effective for themselves (although clearly orientated towards Berlin, St Petersburg and Vienna), but not within a unified and centralized Polish state, with Warsaw as its capital. However, three, or rather four, different systems (the so-called *Kresy*, former *Kongresówka*, the Austrian partition, the Province of Posen and West Prussia, and finally Eastern Upper Silesia) of law and jurisdiction, of infrastructure and transport, education and economy had to be integrated into one entity.

In this context, the question concerning the interrelation between nationalism and the recruitment of Polish versus non-Polish experts is crucial. Which rules were adopted during the transition towards, and reconstruction of an effective independent Polish state? Which techniques were chosen in order to avoid, or at least minimize errors and frictional losses? Moreover, were these techniques a result of open debates and strategies or rather born out of everyday practice on a mid or micro level, including hopes for accelerated professional and social advancement?

To give just one example: Could the reconstruction and adaptation of such a complex system as the Prussian social insurance really be the result of a preceding master plan or strategy? And what about the topics modernization and rationalization? In any case, the rearrangement of administration, economy and social welfare towards an independent domestic policy was desperately in need of control mechanisms, whether the old structures (stemming from the German or Austrian *Kaiserreiche* or from Russian Tsarism) were still worth to be upheld or ready to be dismantled and replaced by new institutions and – even more importantly – new personnel. Finally, yet importantly, this tremendous work of evaluation was accompanied by, and intertwined with a translation of almost every aspect of public life and work into the Polish language.

Therefore, the main point I would like to make is that the rebirth of Poland in 1918 and the subsequent years can and should be understood as a process of political, social and economic transformation of *functional systems*. These functional systems were subject to a gradual, but *à la longue* complete exchange of elites and groups of experts.

However, these systems also had to avoid the loss of their functionality and self-organization, and this was nothing less than a dynamic, precarious balance and an interrelation between inclusion and exclusion. Both terms have a long tradition dating back to Talcott Parsons, David Easton and

Niklas Luhmann.[8] Inclusion and exclusion are normal processes of a given system and its subsystems (in this case the Polish state), and particularly inclusions are regularly introduced not by the entire system, but always by the functional subsystems such as administration, the political system, the churches, economy etc. This also means that processes of inclusion and exclusion are not a matter of a friend-enemy-scheme, but rather constitutive elements of the entire system and its functional rationality.[9]

In which public functional system can continuities be observed that did not harm a 'Polish identity', i. e. that were not perceived as 'foreign'? Was this perception a result of economic necessities or rather a question of Polish personnel (meaning expertise), with whom the impending reconstruction could, and had to, be carried out?

2. Public Administration in the Wielkopolska Region

The question to what extent the import of external knowledge was necessary for the public administration apparatus in Poland after 1918 can be answered in at least two ways: First, for public administration there was no need to import foreign elites to run the municipal machinery. There was, however, a thorough evaluation of other public administrations abroad, mostly in the countries of the former partitioning powers. Moreover, the remnants of Prussian administration probably provided the best example and model, for the Poles themselves were well acquainted with its – at least imagined – efficiency. To reform existing structures seemed to be, and in fact was, much easier than to build them anew.[10] Second, the participation of the Poles in expertise and knowledge was – if at all – a greater problem

[8] NIKLAS LUHMANN, Inklusion und Exklusion, in: Nationales Bewußtsein und kollektive Identität. Studien zur Entwicklung des kollektiven Bewußtseins in der Neuzeit, vol. 2, ed. by HELMUT BERDING, 2nd edition, Frankfurt am Main 1996, p. 15-45. Although different in terminology, the models of Talcott Parsons and David Easton are in many aspects similar to that of Niklas Luhmann. Cf. TALCOTT PARSONS, The Social System, New York 1951; TALCOTT PARSONS, Politics and Social Structure, New York 1969; DAVID EASTON, A Systems Analysis of Political Life, New York 1965.

[9] LUHMANN, Inklusion und Exklusion, p. 43; INGO LOOSE, Feindbild Preußen-Deutschland? Inklusions- und Exklusionsprozesse in den Anfangsjahren der Zweiten Polnischen Republik am Beispiel der Region Wielkopolska, 1918–1925, in: Die Destruktion des Dialogs. Zur innenpolitischen Instrumentalisierung negativer Fremdbilder und Feindbilder. Polen, Tschechien, Deutschland und die Niederlande im Vergleich 1900 bis heute, ed. by DIETER BINGEN/ PETER OLIVER LOEW/ KAZIMIERZ WÓYCICKI, Wiesbaden 2007, p. 49-65.

[10] GEORG W. STROBEL, Denken und Handeln in den polnischen Teilungsgebieten und in Polen nach 1918. Ein politisch-ethischer Vergleich, in: Zeitschrift für Ostmitteleuropa-Forschung 44 (1995), p. 191-270.

in the western parts of Poland than in the former Russian and Austrian partitions. Different forms of autonomy in public life and administration had been more prevalent there than in Prussia, so the western or Wielkopolska region had a strong need for experts in some branches of the administrative system, especially in the higher ranks of municipal authority.[11] Education, qualification and professional experience are different aspects and should not be intermingled. Among the Poles, education as such was not a problem, nor was qualification, but there was a severe lack of experience in those fields of higher education from which the Poles had been banned prior to 1918.[12] Focusing on human capital, we can identify three groups of experts:

First, there were the German or Prussian personnel, who had run the entire Province of Posen until the end of World War I, and who were still well established and not insignificant in number with the definite demarcation of Poland's western borders in 1919. The second group comprised the Poles from the region, who could now reasonably hope that being a member of the Polish national majority would be advantageous in climbing up the career ladder of public service. They constituted a powerful pressure group whose interests could not remain unnoticed by the political leadership in the region, as well as in the political centre in Warsaw. They promised at least loyalty, which was a crucial factor for the unstable young republic. From an exclusively professional standpoint, however, their national argument remained – at least immediately after the war – a rather weak one. This was especially true since according to the regulations of the Peace Treaty of Versailles, the ethnic Germans had the option to remain in the country and become Polish citizens. At first, it was quite unclear how many of them would make use of this option and stay in Poland.

A third group of attractive elites, finally, were the Poles who remigrated after 1918 from the Russian and Austrian partitions or other countries, including Germany itself, where they had often made professional careers

[11] Due to the limited space, I cannot detail the comparative potential of this aspect here. To speak of autonomy in the Russian partition is of course highly problematic. In the given context, only the participation of Poles in the civil service with regard to numbers and ranks is of interest.

[12] As for the system of higher education, the substitution of an existing, but empty German university infrastructure in Poznań in 1919 with the non-governmental Polish organization Towarzystwo Wykładów Naukowych w Poznaniu (founded in 1913), which pursued similar aims and served as the nucleus of a new university, as well as the questions surrounding its personnel and organization, must remain a chapter of future research. Cf. Uniwersytet Poznański w pierwszych latach swego istnienia (1919, 1919-20, 1920-21, 1921-22, 1922-23) za rektoratu Heljodora Święcickiego. Księga pamiątkowa, ed. by ADAM WRZOSEK, Poznań 1924, p. 42-84.

with or without discrimination because of their Polish origin.[13] Their expertise was often higher than that of the local Poles, which is why they could better compete with the remaining German elites. In addition, they were (wittingly or not) part of a *divide-et-impera* policy, for they mostly did not speak German and therefore destroyed existing structures of German-Polish cooperation in the administrative system by forcing the nationalization of the entire system and a complete switch to the Polish language.

The competition of these three groups can be examined with the help of two terms of analysis: first, continuity, and second, the relationship between regional self-organization and the domestic policy pursued by the centralized state. Both of these aspects should moreover be placed in the context – or was it a corset? – of the young democracy, which limited the options and fields of action.

If we regard only the western territories of Poland, we may say that the transition from one (Prussian) to another (Polish) state, despite the uprising and other skirmishes, inevitably required intensive German-Polish communication concerning all questions of the transformation of nearly every aspect of public life. There were no brutal 'cleansings' within the higher ranks of German civil service, and even to the mostly Polish-dominated soldiers' councils it was quite clear that such expulsions would only cause the collapse of the entire political, economic and social system.[14] The Poles wanted to take over and maintain the administration; they did not want to destroy it. Only a few days after Germany's military surrender, the workers' and soldiers' council of Posen, in which the Poles had already gained a majority, took the first steps towards the institutionalization of Polish independence. In most branches of municipal and local administration, Poles were nominated as men of confidence in order to safeguard continuity as well as to gain control over as many political, national and economic decisions as possible.[15] Therefore, in most cases there were official negotiations concerning practical regulations for the future. Right at the beginning, the Polish politicians in the province tried to retain the German civil

[13] For the Polish remigrants from Germany, cf. MIROSŁAW PIOTROWSKI, Reemigracja Polaków z Niemiec 1918–1939, Lublin 2000, p. 155-221.

[14] Archiwum Państwowe w Poznaniu (APP), Akta miasta Poznania, no. 116, passim; cf. WITOLD ŁUKASZEWICZ, Rada robotniczo-żołnierska w Poznaniu 1918–1919, Toruń 1957; STANISŁAW KUBIAK/ FRANCISZEK LOZOWSKI, Rady robotniczo-żołnierskie w Wielkopolsce 1918–1919, Poznań 1959; DARIUSZ MATELSKI, Mniejszość niemiecka w Wielkopolsce w latach 1919–1939, Poznań 1997, p. 41-45.

[15] APP, Akta miasta Poznania, no. 52, fol. 6: Protocol of the session of delegates of the City of Posen, 19 November 1918. An important German eyewitness was Hellmut von Gerlach, who visited the province just two weeks after the November Revolution. HELLMUT VON GERLACH, Von Rechts nach Links, Frankfurt am Main 1987, p. 230-232.

servants and to guarantee a certain degree of continuity via bilateral negotiations with Germany. In any case, the first interim solution was reached no earlier than November 1919, when a German-Polish treaty for resolving the question of civil service was signed.[16] Prussian civil servants were 'lent out' to Poland, i.e. they worked for and were paid by Poland, but officially remained in the cadre of Prussian administration. This was an agreeable solution also for the latter, for it turned out to be quite complicated to find sufficient vacancies in Prussia for returning civil servants. The archival material is full of documents dealing with such cases in which Germans were ordered to remain in Poznań while the search for new positions continued.[17] Functional systems like the municipal organization could not be changed in a revolutionary manner; otherwise, their efficiency would have been endangered. The Russian Revolution only one year before must have been a threatening example and illustration of the potential risks. At any rate, the case of Poland was much easier, for there was no need for ideological battles on a scale comparable to Soviet Russia after 1917.[18]

In this situation, only two options appeared reasonable: a systematic, though not overhasty, exchange of the municipal elites, via decrees, which guaranteed the maintenance and potential of self-organization and modified the administration only in part. In other words, the goals of transformation were somehow 'serialized' on a timescale. In some branches, it was entirely sufficient to nominate a state commissioner for the transition (*Staatskommissar für die Überleitung*), whose task it was to introduce the Polish state into the relevant areas of responsibility stemming from the former Prussian state – from the administration of fisheries to the entire life and social insurance as well as welfare system. This is true not only for those territories which were under Polish sovereignty practically since the beginning of 1919, i. e. right after the outbreak of the Wielkopolska Uprising in late December 1918, but also for those Prussian regions which were regularly transferred to Poland in January 1920 (the so-called ceded territo-

[16] APP, Reichs- und Staatskommissar für die Überleitung an Polen in Schneidemühl, no. 24, fol. 48-49: Regierungspräsident in Bromberg an die Landräte, Kreiskommissare und Oberbürgermeister etc., 28 November 1919.

[17] Archiwum Akt Nowych (AAN), Ambasada RP w Berlinie, no. 752, fol. 4-5: Reichs- und Staatskommissar für die Überleitung im Regierungsbezirk Marienwerder an den Minister des Innern betr. Fürsorge für mittelbare Staatsbeamte der an Polen abgetretenen Gebiete, 1 April 1920; ibid., fol. 144-157: Begründung zu einem Gesetz, betreffend die Unterbringung der mittelbaren Staatsbeamten und Lehrpersonen aus den an fremde Staaten abzutretenden oder von ihnen besetzten preußischen Gebietsteilen, March-April 1920; RALPH SCHATTKOWSKY, Deutschland und Polen 1918/19 bis 1925. Deutsch-polnische Beziehungen zwischen Versailles und Locarno, Frankfurt am Main 1994, p. 12.

[18] BEYME, Systemwechsel, p. 75.

ries or *Abtretungsgebiete* in German). 'All resorts agree,' wrote Friedrich von Bülow, the president of the province, resuming his talks in Berlin in July 1919, 'that there must be a peaceful handing over of the official duties to the Poles; this will illustrate the good will of the Prussian administration to avoid unnecessary difficulties for the Poles.'[19]

This logic of cooperation had its precursor. In summer 1918, negotiations had taken place between the Polish Regency Council (*Regentschaftsrat*) and the German General Governor in Warsaw, Colonel General Hans Hartwig von Beseler, on how to transfer the public administration step by step to the Poles. A proposition made by the Austrian delegate in the military government in Lublin, Count Stefan Ugron, became the basis for further negotiations.[20] However, in September 1918 the German-Polish discussions ended in conflict concerning the extent and speed of this transition. But the basic agreements were quite similar to those reached in spring 1919. Among other things, they provided that at least some of the German municipal personnel should remain in the province and help train the future Polish elites, so that they would eventually become autonomous. Similar attention was paid to the continuation of trade structures, especially the supply of Poland with coal from still undivided, German-controlled Upper Silesia, and the delivery of foodstuffs from Poland to Germany/Prussia.[21]

The striking difference between the situation in summer 1918 and spring 1919 did not lie in the 'if' and 'how' (autonomous Polish ministries had already been established in summer 1918), but in the 'where'. Still at the beginning of November 1918, von Beseler could never have imagined that

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[19] APP, Reichs- und Staatskommissar für die Überleitung an Polen in Schneidemühl, no. 24, fol. 18: Regierungspräsident Bromberg (gez. von Bülow) – Niederschrift aus meinen Besprechungen in Berlin am 9. und 10. Juli 1919 (author's translation); cf. APP, Reichs- und Staatskommissar für die Überleitung an Polen in Schneidemühl, no. 1, fol. 8-17: Deutsch-polnischen Abkommen über die militärische Räumung der Abtretungsgebiete und die Übergabe der Zivilverwaltung (›Räumungsabkommen‹), 25 November 1919; ibid., no. 7, fol. 56-57: Vereinbarung zwischen der deutschen und polnischen Regierung über die Inkraftsetzung des Vertrages von Versailles, 9 January 1920.

[20] AAN, Gabinet Cywilny Rady Regencyjnej Królestwa Polskiego, no. 94, fol. 1-2: Der Delegierte des K. und K. Ministeriums des Äußeren in Warschau Seiner Durchlaucht Prinzen Janusz Radziwiłł, Direktor des kgl. polnischen Staatsdepartements, 15 October 1918.

[21] Ibid. Prussian State Commissar Hellmut von Gerlach's above-mentioned visit to Posen in November 1919 was primarily intended to negotiate the continuity of economic relations between Prussia and the Polish occupied territories. GERLACH, Von Rechts nach Links, p. 230-232. AAN, Ministerstwo Spraw Zagranicznych, no. 9494, fol. 1-33: Denkschrift über die Grundlagen der zukünftigen Handelspolitik und den Handelsvertrag Deutschlands mit Polen; AAN, Delegacja Polska na Konferencję Pokojową w Paryżu, no. 37, fol. 28-59: Vorläufiges Deutsch-Polnisches Wirtschaftsabkommen, 22 October 1919.

his already restricted compromise with the Poles could come to apply not only to the German-occupied *Kongresówka*, but a mere six weeks later also to territories that he undoubtedly considered to be genuine Prussian lands.

The changes towards *Województwo Poznańskie*, however, entailed not only a process of exclusion of Prussia-Germany, but also a second one, i.e. a policy of inclusion intended to better integrate the formerly Prussian province into the new Polish state. This inclusion was also far from being an automatic, smoothly running process. Probably the best evidence towards this is the establishment of the Ministry for the Former Prussian Province (*Ministerstwo byłej Dzielnicy Pruskiej*) in Poznań, which existed until 1922. Like no other institution in postwar Poland, this ministry was part and centre of a multi-dimensional transformation process and testified not only to the technical, but also to the mental problems *and* achievements of these changes. As an instrument of exclusion, the ministry was mainly responsible for the evaluation of 'Prussian remnants' and the exchange of elites within the entire apparatus of public service. The Polish elites in the region generally tended to cooperate with the Germans, while the authorities in Warsaw and the experts who were 'imported' mainly from Galicia were rather mistrustful of them.

As far as inclusion is concerned, the area of conflict had a political as well as an economic dimension – political because in contrast to the central authorities in Warsaw, the National Democrats (the so-called *Endecja*) dominated the western territories and Poznań. The ministry and its far-reaching independence had an economic dimension in that Wielkopolska – 'Poland A', as the phrase was coined in those years – was far better situated than Central and Eastern Poland. Therefore, the Ministry for the Former Prussian Province was part of the German-Polish transformation process, but also of the inner-Polish changes in the first years after 1918.[22]

No matter whether in a post office, in a police precinct or in the city hall: During the phase of transformation and transition, the situation is well described of Polish aspirants sitting behind Prussian, Austrian or Russian civil servants, i.e. experts, in order to learn first by observing and then by doing until they felt qualified enough to replace their former superiors. In the former Prussian province, this stage of 'learning by doing' turned out to be more complicated than in other regions because in the Prussian administration the Poles had been able to climb only to the middle ranks of public service. Therefore, the 'clash of nations' was rather a clash of two competing groups: Germans who remained in Poland and tried to maintain their accustomed style of living, and Poles, especially from the middle

[22] ANDRZEJ GULCZYŃSKI, Ministerstwo byłej Dzielnicy Pruskiej (1919–1922), Poznań 1995.

class, who had a strong hunger for professional advancement.[23] With regard to the socioeconomic stratification of the Polish population, however, even this clash was contained by the rather small number of Poles who were able to join the new Polish civil service. In 1921, 55 per cent of the population in Wielkopolska worked in the agrarian or forestry sector, 16 per cent in the industrial sector and only 4.8 per cent in trade business.[24] In autumn 1918, the administration of the city of Posen consisted of 900 civil servants, among them only 50 Poles. One year later, among more than 200 secretaries and assistants, there were still only 30 Poles. The change of elites became visible no earlier than in 1920, but in July of that year there were still more than 230 Germans among roughly 1,000 members of the city's administration staff.[25]

There is another significant aspect that defined the extent of the exchange of expertise between Germans and Poles: language as a means of communication and as an obstacle for knowledge exchange. At the beginning, the Polish administration even used the old letterheads, correcting the German addresses by hand. As time went by, however, there was a growing conflict because Prussian civil servants continued to keep their correspondence in German, even with Polish addressees who complained to the administration and even more often to newspapers, which generally made a scandal out of these incidences.[26]

In many fields of transformation, the problematic term 'Polonization' also covered the development of the Polish language. It had to been supplemented where a specific technical vocabulary had not been necessary before 1918, for instance in postal and telecommunications engineering. This change and supplementation most probably was a rather fast process: For the above mentioned sphere of telecommunications, it was no lesser

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[23] Cf. the entire correspondence in APP, Akta miasta Poznania, no. 53, fol. 3-55; ibid., fol. 56-57: Vorlage des Magistrats an die Stadtverordnetenversammlungen (Rada miejska w Poznaniu) betr. Bewilligung eines Kredits zur Polonisierung der Verwaltung, 12 July 1919.

[24] HENRYK LISIAK, Narodowa Demokracja w Wielkopolsce w latach 1918–1939, Poznań 2006, p. 7.

[25] APP, Akta miasta Poznania, no. 53, fol. 125: Wykaz ilości zatrudnionych obecnie urzędników przy Magistracie w Poznaniu, rodzaju ich czynności oraz narodowości [November 1919]; ibid., fol. 159: Magistrat, Biuro I do Pana Wojewody w Poznaniu z dnia 24 lipca 1920 roku dot. liczby sił urzędniczych przy Magistracie w Poznaniu.

[26] APP, Akta miasta Poznania, no. 53, fol. 93-94: Verfügung von Oberbürgermeister Drwęski, No. I 543/19, an die Magistratsmitglieder und alle Dienststellen vom 10. Juli 1919 betr. »Polonisierung des Geschäftsverkehrs«; ibid., no. 53, fol. 183: Komenda Wojewódzka Policji Państwowej do Pana Prezydenta Drwęskiego z dnia 21 czerwca 1920 r. w sprawie używania przez magistrat poznański na drukach swoich ›Posen‹ i t. d.; cf. Niemieckie adresy na listach, in: Kurjer Poznański no. 139 (20 June 1920).

person than the famous *enfant terrible* of the Berlin and Munich Bohème, Stanisław Przybyszewski, who was in charge of writing the first Polish dictionary of telecommunications.[27] The coexistence or even cooperation in the initial phase, however, found its clear limits in the introduction of Polish as the exclusive official language in spring 1919. This undoubtedly constituted and initiated one of the most crucial processes of inclusion and exclusion, with severe consequences especially for the national minorities. While most of the well-educated Poles at least in the former Prussian Province of Posen knew or spoke German, a corresponding knowledge of Polish among Germans was rather exceptional.

There is no doubt that for the Germans and also for the Jews, who were mostly orientated towards German culture, the widespread ignorance of Polish turned into a fatal disadvantage in professional life practically overnight.[28] The German-speaking Jewish minority with its liberal political orientation had a double language handicap: They mostly spoke neither Polish nor those languages (Yiddish, Russian) which were necessary to get in contact with their coreligionists in the former Russian partition, who constituted the overwhelming majority of Poland's Jewish minority.[29]

Another, equally important aspect of the language question was for how long expertise and knowhow from Germany and/or Prussia was advantageous or even an indispensable precondition for those Poles whose work was part of the transformation process after 1918. For how long did they have better professional and career perspectives in administration or the economy? Many Poles were now given opportunities of professional and social advancement they had never dreamt of before: At their disposal was more or less the entire system of state and municipal organization. Nevertheless, the Germans had always been a minority, and thus there was soon a lack of free positions, which accelerated competition among Poles and weakened the position of German experts still working in the administrative apparatus. It is no coincidence that the entire administration in postwar Poland was, if not overinflated, then at least bigger in terms of numbers of employees than the previous Prussian institutional structures.[30]

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[27] PRZEMYSŁAW MATUSIK, Początki poczty polskiej w Poznaniu 1918–1920, in: Naczelna Rada Ludowa 1918–1920, Poznań 1998, p. 178-199, p. 190-192.

[28] KARL KASSEL, Kampf gegen den Antisemitismus? in: Mitteilungs-Blatt des Jüdischen Volksrats 1, no. 10/11 (1919), p. 97-100, p. 98.

[29] MAX KOLLENSCHER, Jüdisches aus der deutsch-polnischen Übergangszeit. Posen 1918–1920, Berlin 1925, p. 188, 210.

[30] APP, Akta miasta Poznania, no. 53, fol. 56-57: Vorlage des Magistrats an die Stadtverordnetenversammlungen (Rada miejska w Poznaniu) vom 12. Juli 1919 betr. Bewilligung eines Kredits zur Polonisierung der Verwaltung.

A similar social mobility can be observed in the army, for most of the Poles serving in the troops of the partitioning powers had remained on lower ranks and now hoped for a faster ascent on the career ladder. The new Polish army not only helped overcome Poland's painful experience of World War I, being the battlefield of the partitioning powers, but also combined the national question with an individual social rationale of the soldiers.[31] I would even go as far as to argue that in these military advancements lies a key to better understand why the Wielkopolska Uprising, despite its militarily quite limited significance, inhabited (and still inhabits) a prominent position in Polish national consciousness. This link becomes even more obvious when we consider the situation parallel to the uprising: An 'army', i. e. a considerable number of skilled German and Polish civil servants worked together to transform the administration from a Prussian to a Polish one; and this is also true for the territories of West Prussia and Silesia which had been ceded to the sovereignty of the Polish Republic.[32]

From that point of view, the question surrounding experts and transnational knowledge transfer makes it possible to see from a different angle what is normally perceived as an example of allegedly eternal Polish-German hostility. In fact, these events had nothing, or at least not much, to do with national animosity. Which Polish postal worker, for instance, would have refused the opportunity of professional advancement when the rows of German superiors began to thin out – and this for reasons far beyond his responsibility? Thus, the factor of upward mobility seems to have been significant before it was overlapped by a national rationale.

3. Conclusion

The picture of the renaissance of Poland after World War I historians have sketched since 1919 mostly concentrates on the political macro level. It is far from convincing, however, that this macro-level perspective sufficiently explains micro-level developments in single regions, as well as specific social, economic or cultural topics.[33] The focus on experts, their knowhow and the mobility of this knowledge is therefore a promising approach to

[31] LOOSE, Der Erste Weltkrieg als Eschatologie, p. 42-44.

[32] To illustrate this admittedly unusual interpretation of the Wielkopolska Uprising, I refer in general to the entire archival material of the Reichs- und Staatskommissar für die Überleitung an Polen and of the Ministry for the former Prussian Province, both in the State Archive in Poznań.

[33] For German-Polish cooperation in culture, cf. BOGUSŁAW DREWNIAK, Polen und Deutschland 1919-1939. Wege und Irrwege kultureller Zusammenarbeit, Düsseldorf 1999.

deconstruct established theories which are inaccurate or at least not sufficiently complex.

As I have attempted to show, Poland urgently had to rely on external expert knowledge and to maintain Prussian, Austrian and Russian structures which proved their effectiveness (although this was generally not openly admitted) even many years after 1918. On the other hand, the starting point for the Polish state was not as bad as those who were convinced of the short lifespan of the Central European postwar order thought.

The evaluation of the old structures and the eclectic choice of what had to be maintained, reformed or rearranged was a complex balancing act between the need for modernization and the risk of losing effectiveness. Moreover, all this had to be done with a quite unreliable and colourful structure of experts and staff.

At least for the western territories of Poland, the communication between German and Polish experts served as a central and pivotal point for the stability of the entire state. There is substantial evidence that the dividing line between inclusion and exclusion mechanisms ran along the border between inner, invisible and outer, visible administrative decisions. This means that the administration could allow stronger continuities from the time before 1918 and had greater possibilities of manoeuvre in those departments and areas which were not direct objects of constant national evaluation, legitimization and control by the (Polish) public. In other fields, it became more and more embarrassing and/or problematic to keep working with non-Polish experts, especially under politically radicalized circumstances. In these contexts, where there was a need to uphold Prussian structures, but also a need to hide this 'tradition' from the public, concepts of the enemy could serve as a camouflage.[34]

There was also a strong element of modernity in these forced eclectic evaluation procedures – the newest and most apt strategy could always be chosen from a range of options – but it seems that in the context of tense relations between Poland and its neighbours, the growing intensity of national labelling only diminished this potential. Admittedly, the exchange of expertise between German and Polish civil servants was only a rather short chapter in the history of interwar Poland. Nevertheless, despite this framework of national categorization, regional knowhow and the functioning and effectiveness of the social, economic and political systems and subsystems remained, if not untouched, then at least more or less stable,

[34] CHRISTOPH SCHUTTE, Deutsche und Polen in der Provinz Posen. Überlegungen zur Relevanz gegenseitiger Lernprozesse, in: Vom Gegner lernen. Feindschaften und Kulturtransfers im Europa des 19. und 20. Jahrhunderts, ed. by MARTIN AUST/ DANIEL SCHÖNPFLUG, Frankfurt am Main 2007, p. 114-136.

notwithstanding the continuous emigration of ethnic Germans to the Reich. Polemically one could even argue that the Germans, who parted first, were a relatively small loss for Poland – at least in terms of loyalty, but perhaps also in terms of their expertise.

However, it is hardly possible to measure a phenomenon such as efficiency. It is also difficult to illustrate the translation of expert knowledge into real, visible administrative decisions with concrete examples. This has to be the next step of scholarly research. In any case, it will be no small task, as the historical discourse especially in Poland still sketches a uniform and standardized picture of Poland's rebirth. The ceremonies at the end of 2008 celebrating the ninetieth anniversary of the Wielkopolska Uprising are a good illustration of this.[35]

Weimar Germany could not admit that its experts had prepared Poland for independence, and Poland could not admit that Germany had a certain impact on the viability of the Second Polish Republic. Therefore, to accept that Poland's transformation was a complex, unforeseeable and nevertheless successful process, to accept that it was to a great extent the result of intensive communication and the readiness of elites to learn from each other beyond any national agenda, would introduce a genuinely new perspective to the alleged common sense of German-Polish historiography of the past ninety years.

[35] On the ninetieth anniversary of the Wielkopolska Uprising in 2008, there is *nihil novi* in the sense of significant new questions or perspectives on the role, meaning, and outcome of Poland's transformation in 1918/1919. Cf. Powstanie Wielkopolskie 1918–1919. Wybrane aspekty z perspektywy 90 lat, ed. by JANUSZ KARWAT, Poznań 2008; MAREK REZLER, Powstanie Wielkopolskie 1918–1919. Spojrzenie po 90 latach, Poznań 2008.

ROSWITHA REINBOTHE

LANGUAGES AND POLITICS OF INTERNATIONAL SCIENTIFIC COMMUNICATION IN CENTRAL EASTERN EUROPE AFTER WORLD WAR I

1. Languages in International Scientific Communication

In the area of international scientific cooperation, with its numerous congresses, associations and publications, having been established in the nineteenth century, the leading scientific languages French, English and German dominated communication and, at the same time, were rivals in exerting influence. Additionally, Italian was used in some cases and Spanish rarely.

The use of a foreign language as lingua franca served purposes of communication and comprehension among many scientists from different countries. In view of the multilingualism in scientific cooperation, experts had to be well acquainted with at least one official language, and understand the others. Given the close relationship between language, perception and thought, those scientists who could use their native language for specific terms and formulating precise arguments naturally enjoyed linguistic and cognitive advantages in international communication. Moreover, they were better able to promote their own research work.[1] At the same time, an evolved scientific lingua franca gave scientists speaking other languages

[1] The German historian Jürgen Kocka, for example, pointed out the consequences of specific terms in different languages for research work. In the context of nineteenth-century European history, he argued, the meaning of the German term *Bürgertum* would not be congruent with the French term *bourgeoisie* and the English term *middle class*. In a workshop Kocka used the German term as a key term (*Leitbegriff*). Otherwise, he explained, the use of the French or the English term as a key term would have led to a different formulation of questions, a different research process and different results; JÜRGEN KOCKA, Mehrsprachiges Europa. Die Bedeutung der eigenen Sprache in der Wissenschaft, in: Die Wissenschaft spricht Englisch? Versuch einer Standortbestimmung, ed. by UWE PÖRKSEN, Special Issue of Valerio 1 (2005), p. 19-24, p. 19.

access to advanced knowledge and methods that they would not have found in their own countries. The use of more than one scientific language multiplied these advantages and offered different perspectives. On the other hand, an orientation and dependence on highly developed and specialized knowledge and science in a foreign language had the potential to entrench the relationship with the country in question, with scientific, political and economic consequences. Therefore, the scientific powers endeavoured to strengthen their own languages in international scientific communication in order to increase their own influence.

When during World War I international scientific cooperation was disrupted and the opposing sides extremely accelerated research for war purposes, especially in the fields of technology, natural sciences and medicine, the languages were also affected. For their part, the Allies used French and English, while the Central Powers used German. Even after the war, the choice of a scientific lingua franca was often the expression of a political motivation. This was also evident in international scientific organizations involving scientists from Central Eastern Europe. The decline of German as an international scientific language and the rise of French and English were forced during this time.

2. The Allies' New Scientific Organization Including Poland and Czechoslovakia

The rift in international scientific communication and the struggle for scientific power among the erstwhile enemies continued after the war, especially in relevant disciplines. The victorious Allied countries, particularly the Allied academies of sciences from the U.S.A., Great Britain, France, Belgium and Italy, created new international scientific organizations under their leadership. The chief among these were the International Research Council (IRC) founded in Brussels in 1919, with affiliated unions for special branches of science, and the International Union of Academies for the humanities, as successors of the International Association of Academies, founded in Wiesbaden in 1899, when the unity of the sciences (natural sciences) and humanities was still observed.

The primary objective of this project of the Allies was to prevent reconstruction of the prewar dominance of German scientists, the German language and German publications in the area of international scientific cooperation. Therefore the scientists of the Central Powers, and even the German language itself, were excluded from the new organizations, their re-

search work, conferences and publications.[2] The official languages of the new scientific organizations were French and English, just as in the League of Nations. With respect to official documents, the French text was considered to be the authoritative text, because French was the traditional language of science and diplomacy.

This boycott against German science and the German language was based on the nationalism and militarism of the German scholars during the war. In a manifesto 'To The Civilized World!' (*Aufruf 'An die Kulturwelt!'*) from 4 October 1914, arranged by the Reich Naval Office (*Reichsmarineamt*) and the Foreign Ministry for propaganda purposes,[3] ninety-three prominent German scholars representing German science and culture denied German war guilt and war crimes in Belgium and France[4] and at the same time glorified the German army and the unity of German militarism and German culture.[5] The fact that most of them refused to change their minds afterwards[6] made it difficult if not impossible for scientists from the Allied countries, particularly Belgium and France, to resume scientific relations with the Germans after the war. Above all, the Allied scientists sought to prevent the re-establishment of German power in the international scientific arena. Therefore they created new scientific institutions without German participation, undermining the Germans' influence.

The breakup of international collaboration in the sciences passed right through to Central Eastern Europe. Hungary, part of the Central Powers during the war, was excluded, while the newly formed states Poland and Czechoslovakia were integrated into the IRC and other international institu-

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[2] SIEGFRIED GRUNDMANN, Der Boykott der deutschen Wissenschaft nach dem ersten Weltkrieg, in: Wissenschaftliche Zeitschrift der Technischen Universität Dresden 14/3 (1965), p. 799-806; BRIGITTE SCHRÖDER-GUDEHUS, Deutsche Wissenschaft und internationale Zusammenarbeit 1914–1928. Ein Beitrag zum Studium kultureller Beziehungen in politischen Krisenzeiten, Genève 1966; DANIEL J. KEVLES, "Into Hostile Political Camps". The Reorganization of International Science in World War I, in: Isis 62 (1971), p. 47-60; ROSWITHA REINBOTHE, Deutsch als internationale Wissenschaftssprache und der Boykott nach dem Ersten Weltkrieg, Frankfurt am Main 2006.

[3] JÜRGEN VON UNGERN-STERNBERG/ WOLFGANG VON UNGERN-STERNBERG, Der Aufruf 'An die Kulturwelt!'. Das Manifest der 93 und die Anfänge der Kriegspropaganda im Ersten Weltkrieg. Mit einer Dokumentation, Stuttgart 1996.

[4] JOHN HORNE/ ALAN KRAMER, German Atrocities, 1914. A History of Denial, New Haven 2001.

[5] BERNHARD VOM BROCKE, 'Wissenschaft und Militarismus'. Der Aufruf der 93 'An die Kulturwelt!' und der Zusammenbruch der internationalen Gelehrtenrepublik im Ersten Weltkrieg, in: Wilamowitz nach 50 Jahren, ed. by WILLIAM M. CALDER III/ HELMUT FLASHAR/ THEODOR LINDKEN, Darmstadt 1985, p. 649-719.

[6] HANS WEHBERG, Wider den Aufruf der 93! Das Ergebnis einer Rundfrage an die 93 Intellektuellen über die Kriegsschuld, Berlin 1920.

tions dominated by the Allies from the beginning. In these new organizations, Poland and Czechoslovakia actively supported the boycott against German, Austrian, Hungarian and Bulgarian scientists and the German language as a language of science. Although German was widespread as the language of science in these countries, they forced it back because of conflicts with German minorities, especially in the territories that Germany and Austria-Hungary had lost in the war, and German ambitions for renewed conquest.

Personal and institutional relationships between Poland and Czechoslovakia and the new international organization of science were built up systematically. This cooperation offered chances for the development and modernization of science and scientific institutions in both countries and at the same time served the strategic ends of the associates. Since these scientific relationships have not yet been researched, this paper can only give a general outline suggesting that it should be explored how collaboration within the new international scientific organizations established by the Allies after the war had practical consequences, including the transformation of national institutions in Poland and Czechoslovakia.

As a delegate of the Polish Academy of Sciences in Krakow, the writer Władysław Mickiewicz had already joined the Inter-Allied Conference of the Academies of Sciences in November 1918 in Paris when the boycott was declared.[7] One year later, Władysław Natanson, another member of the Polish Academy of Sciences and professor of natural science at the University of Krakow, attended the 1919 Constitutive Assembly of the IRC in Brussels as a delegate of Poland.[8]

Polish delegates at the subsequent assemblies of the IRC were Kazimierz Kostanecki, member of the Polish Academy of Sciences and professor of anatomy at the University of Krakow,[9] Władysław Szajnocha, professor of geology at the same institution, and Stefan Pieńkowski, physi-

[7] Conférence des Académies des sciences interalliées (deuxième session) tenue à Paris en novembre 1918. Compte rendu: Académie Royale de Belgique, Bulletin de la classe des sciences, no. 1, 1919, p. 63-81, p. 64, 80.

[8] International Research Council. Constitutive Assembly held at Brussels, July 18th to July 28th, 1919, Reports of Proceedings, ed. by Sir ARTHUR SCHUSTER, London 1920, p. 62.

[9] At the beginning of World War II and the German occupation of Poland, Kostanecki was arrested by the Nazis. They deported him together with other Polish scientists to the concentration camp Sachsenhausen, where he died in 1940 (Österreichisches Biographisches Lexikon 1815–1950, ed. by Österreichische Akademie der Wissenschaften, vol. 4, Wien 1969, p. 153).

cist at the University of Warsaw. They assisted in establishing the respective scientific unions.[10]

Czechoslovakia sent a delegate to the assembly of the IRC for the first time in 1922 – the botanist Bohumil Němec, chancellor of Charles University in Prague. At the subsequent conferences of the IRC, he was accompanied by Ladislav Syllaba, professor of medicine in Prague and president of the National Research Council, Václav Posejpal, general secretary of the National Research Council, and physicist and mathematician Bohuslav Hostinský from Brno University.[11] A National Research Council had already been founded in Czechoslovakia, copying the American model founded in 1916. The creation of such national institutions had been advocated in a paper by the U.S. National Academy of Sciences presented at the Allied conference in London in 1918, the intention being to build up a new international system of scientific cooperation. The paper suggested that all countries should establish national research councils, the central instance of which should be the International Research Council (IRC). The same system, it proposed, should be adopted by the scientific unions for the special branches of science, as was partly implemented by Poland and Czechoslovakia. This was intended to create an efficient organization for the transmission and transformation of international research in the national institutions.[12]

The most significant scientific unions of the IRC, founded in 1919, were:

- the International Astronomical Union (IAU) with thirty-two to thirty-five commissions, among them the International Time Commission, the International Central Bureau for Astronomical Telegrams and the Commission of Bibliography, replacing the Astronomical Society (*Astronomische Gesellschaft*) founded as an international association in Heidelberg in 1863 and the International Union for Co-operation in Solar Research founded in St Louis in 1904;[13]

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[10] International Research Council, Second Assembly held at Brussels July 25th to July 29th, 1922. Reports of Proceedings, ed. by Sir ARTHUR SCHUSTER, London 1923, p. 48-49; Third Assembly held at Brussels, July 7th to July 9th, 1925. Reports of Proceedings, ed. by Sir ARTHUR SCHUSTER, London 1925, p. 22.

[11] Ibid. 1922, p. 49; 1925, p. 23.

[12] Suggestion for the International Organization of Science and Research. Submitted by the Council of the National Academy of Sciences; Outline of plan for an Inter-Allied Research Council; REINBOTHE, Deutsch als internationale Wissenschaftssprache, p. 131-132.

[13] International Research Council. Constitutive Assembly 1919, p. 14-19, 78-109, 160-172; Transactions of the International Astronomical Union. Vol. I. First General Assembly held at Rome May 2nd to May 10th , 1922, London 1922; ADRIAN BLAAUW, History of the IAU. The Birth and First Half-Century of the International Astronomical Union, Dordrecht

- the International Union of Geodesy and Geophysics (IUGG) with seven sections for Geodesy, Seismology, Meteorology, Terrestrial Magnetism and Electricity, Physical Oceanography, Volcanology, Scientific Hydrology, replacing the International Geodesic Association (*Internationale Erdmessung*) founded in Berlin in 1886 and the International Association of Seismology (*Internationale Seismologische Assoziation*) founded in Strasbourg in 1903;[14]
- the International Union of Pure and Applied Chemistry (IUPAC), replacing the International Association of Chemical Societies founded in Paris in 1911.[15]

In medicine, for example, Allied physicians replaced the International Anti-Tuberculosis Association (*Internationale Vereinigung gegen die Tuberkulose*) founded in Berlin in 1902 with the International Union against Tuberculosis founded in Paris in 1920.[16]

Scientists from Poland and Czechoslovakia were members of these unions and contributed to their scientific work. At the same time, they supported the boycott against German and Austrian scientists and the German language.[17]

The Polish astronomer, mathematician, geodetic scientist and cartographer Tadeusz Banachiewicz, director of the Krakow Observatory and professor at the University of Krakow, had already sent a letter to the Constitutive Assembly of the IRC in 1919 when the IAU was established, offering the cooperation of the Krakow Observatory, although his research was impeded by the lack of modern instruments.[18] Banachiewicz became a

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1994; REINBOTHE, Deutsch als internationale Wissenschaftssprache, p. 41-55, 138-140, 144-146, 299-308, 378-383.

[14] International Research Council. Constitutive Assembly 1919, p. 20-24, 173-178; Union géodésique et géophysique internationale. Première Assemblée générale réunie à Rome du 2 au 10 mai 1922, Toulouse 1923; REINBOTHE, Deutsch als internationale Wissenschaftssprache, p. 56-75, 140-146, 384-390; MARIELLE CREMER, Seismik zu Beginn des 20. Jahrhunderts. Internationalität und Disziplinbildung, Berlin 2001.

[15] International Research Council. Constitutive Assembly 1919, p. 25, 179-184; Union internationale de la Chimie pure et appliquée. Comptes rendus de la première Conférence internationale de la Chimie. Rome 22-24 juin 1920, Paris; ROGER FENNELL, History of IUPAC 1919–1987, Oxford 1994; ULRIKE FELL, Disziplin, Profession und Nation. Die Ideologie der Chemie in Frankreich vom Zweiten Kaiserreich bis in die Zwischenkriegszeit, Leipzig 2000; REINBOTHE, Deutsch als internationale Wissenschaftssprache, p. 141-148, 298-299, 391-397.

[16] Conférence internationale contre la tuberculose. Paris 17-21 octobre 1920, Paris 1921; REINBOTHE, Deutsch als internationale Wissenschaftssprache, p. 88-95, 218-243.

[17] Ibid., p. 138-163.

[18] Banachiewicz, 1 July 1919, cited in: International Research Council. Constitutive Assembly 1919, p. 14-15.

delegate for Poland within the IAU and IUGG and president of the Polish National Committee for Astronomy. Before the war, he had been a member of the Astronomical Society, when German was the official language. Now the languages of IAU and IUGG were English and French. Banachiewicz preferred to speak French.[19]

The function of the National Committee of Poland in the IUGG was fulfilled by the Polish Academy of Sciences in Krakow. The organization of Polish experts in the IUPAC was much the same: The affiliate institution was the Polish Federation of Pure and Applied Chemistry (*Polskie Towarzystwo Chemiczne*). When the IUPAC conference was held in 1927 for the first time in Warsaw, the Polish delegation was composed of five professors from the Warsaw Technical College, one from the Warsaw Pharmaceutical Institute, three from the University of Krakow and two from the University of Lwów.[20]

In Czechoslovakia also, national committees for astronomy as well as geodesy and geophysics were established as affiliate organizations of the IAU and IUGG. In the IAU, the Czechoslovakian government initially functioned as the adhering organization until a national committee was constituted. The president of the National Committee for Astronomy was Vladimír Heinrich, professor of astronomy at Charles University in Prague. Further delegates in the IAU were František Nušl, professor at the same university and director of the National Observatory in Prague, and Ladislav Beneš from the Military Geodetic Institute in Prague. From 1928 to 1932, Nušl became one of the four vice-presidents of the IAU. Because of the close relationship between astronomy, geodesy and geophysics, Nušl and Beneš were at the same time the Czechoslovakian delegates in the IUGG. Nušl headed the Czechoslovakian delegation composed of meteorologists, hydrologists and engineers. In 1927, the IUGG held a general assembly for the first time in Prague. Eighteen Czechoslovakian experts from the University, Technical College, Observatory, Ministry of Finances (office of triangulations), Meteorological Institute and Hydrological Institute (all in Prague), as well as the Brno Technical College and Pribram Mining School attended the conference.[21]

In the IUPAC, Emil Votoček, professor of organic chemistry at the Prague Technical College and president of the Czechoslovakian Chemical

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[19] Ibid.

[20] Union internationale de la Chimie pure et appliquée. Comptes rendus de la huitième Conférence internationale de la Chimie. Varsovie: 4 septembre – 14 septembre 1927, Paris [s. a.].

[21] Union géodésique et géophysique internationale. Troisième Assemblée générale réunie à Prague du 3 au 10 septembre 1927, Toulouse 1927.

Society, was among those representing Czechoslovakia. At the same time, the Czechoslovakian Chemical Society was the affiliate organization of the IUPAC. Votoček was elected one of the four vice-presidents of the IUPAC (1922-24).[22]

Thus, many scientists and scientific institutions in Poland and Czechoslovakia were involved in the science networks the Allies had established after the war, and some experts attained leading positions. The assemblies of the IUGG in Prague (1927) and the IUPAC in Warsaw (1927) emphasized the importance of these countries for the scientific cooperation the Allies had instituted.

Protection against German ambition for power was an important motivation for Polish and Czechoslovakian scientists to join the Allied project. How deep the aversion against the German, Austrian and Hungarian scientists was could be seen in the position of the Polish and Czechoslovakian delegates at the General Assembly of the IRC in 1925: When the delegates of the neutral countries Sweden, Denmark and the Netherlands, supported by the delegates from the United States, Great Britain and Ireland, Italy, Japan, Norway, Switzerland and South Africa, put to the vote the motion to abolish the boycott, the Polish and Czechoslovakian delegates voted against it together with the hardliners France and Belgium as well as Egypt and Morocco. The Spanish delegates abstained.[23] Not until the following year was the boycott successfully removed. And cooperation with the former outcasts was not immediately re-established. Instead, the negotiations mediated by neutral scientists continued into the 1930s.[24]

For the purposes of international communication, Polish and Czechoslovakian scientists generally spoke and wrote in French. An example may illustrate the intentional shift in the use of the languages: At the International Congress of Anthropology in Prague in 1924, organized by the International Anthropological Institute in Paris (founded in 1920), German and Austrian scholars as well as the German language were banned. 'Obviously the German language was boycotted at the request of the Czechs,' reported the German ambassador.[25] Many members of the congress would have been forced to speak French, even though they could speak German much better. A proposal brought forward by a Dutch anthropologist to

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[22] Union internationale de la Chimie pure et appliquée. Comptes rendus de la troisième Conférence internationale de la Chimie. Lyon 27 juin – 1er juillet 1922, Paris [s. a.], p. 59.

[23] International Research Council. Third Assembly (1925), p. 6-13.

[24] REINBOTHE, Deutsch als internationale Wissenschaftssprache, p. 250-251, 345-397.

[25] Walter Koch, German ambassador in Prague, to Auswärtiges Amt, 23 September 1924, in: PA AA (Politisches Archiv des Auswärtigen Amts), R 64500 (author's translation).

invite German and Austrian scholars as soon as Germany joined the League of Nations met with broad support, but was not put to the vote because of its refusal by the Czechoslovakian hosts.[26]A central demand of German scholars was the re-admission of German as an equal language with French and English. In most international institutions, however, the equal status of German was not regained. Thus, in international communication, especially in significant branches of science, the boycott entailed an enduring decline of the German language, particularly in Central Eastern Europe.

In Poland, Czechoslovakia and other countries, the decline of the German language was promoted by an active language policy on the part of France, coupled with an attack on German power politics. When in 1925 the University of Paris, supported by the French Ministries of Education and Foreign Affairs, founded a French Institute (*Institut Français*) in Warsaw for promoting the French language, culture and science,[27] about six hundred French intellectuals sent a declaration to the presidents, chancellors and members of the Academy of Sciences and the universities in Poland who had representatives in the council of the institute, warning of the German endeavours of conquest: 'L'Allemagne n'a point désarmé. […] elle aspire à conquérir.'[28] A similar French Institute had already been established in Prague in 1920,[29] but in Budapest the foundation was not achieved until 1947.

Although the French language was successful in gaining temporary influence at the expense of German in most areas of science, English won out in the long run. The U.S.A. had risen during and after the war to the leading scientific power in the world and created an international market for scientific publications in the English language. Due to the boycott, but also due to the U.S.A.'s rich resources, American publications displaced German books and periodicals worldwide. American foundations such as the Rockefeller Foundation, Carnegie Institution, Smithsonian Institution or the Anglo-American University Library for Central Europe granted scholarships and extensive donations to research funds and university libraries, intended to enhance scientific development and simultaneously promote the

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[26] Ibid.; Institut International d'Anthropologie. II[e] Session Prague 14-21 septembre 1924, Paris 1926. At the conference only three Czechoslovakian anthropologists used English and one Argentine Spanish.

[27] KARL REMME/ MARGARETE ESCH, Die französische Kulturpropaganda. Auf der Grundlage französischen Quellenmaterials und eigener Beobachtungen im Ausland, Berlin 1927, p. 36-37.

[28] La Pologne (Paris), cited in: Mitteilungen des Verbandes der Deutschen Hochschulen 5/8 (1925), p. 147-148, quote on p. 147.

[29] REMME/ ESCH, Die französische Kulturpropaganda, p. 35.

spread of the English language in Central Eastern Europe and other countries. The Rockefeller Foundation, for example, asked scholars who applied for a scholarship to master English.[30]

By contrast, the export of German scientific books and journals to Central Eastern Europe as well as to the Baltic and Scandinavian countries or the Netherlands, where German scientific literature traditionally had a large circulation, fell back.

3. German Activities against the Boycott

Many German scientists did not have a very conciliatory attitude and even staged a counter-boycott.[31] 'Donation from Polish side refused' – with these words the director of the Mathematical Institute of the University of Jena immediately returned the journal of the Polish Academy of Sciences, *Fundamenta mathematicae*, which a professor of mathematics at the University of Warsaw had sent to him.[32] Similarly, the Hamburg University Library refused an exchange of academic publications with the University of Bratislava after the German University Conference (*Deutscher Hochschultag*) decided in 1925 to stop the exchange of publications with Czechoslovakian universities as long as German scientists were excluded from congresses.[33]

At the same time, German scientists and scientific organizations launched numerous initiatives to break through the isolation that the boycott had brought about, and to save the international reputation of the German language and scientific community. For this purpose, with the support of scientists from neutral countries, they founded for example the Baltic Geodesic Commission (*Baltische Geodätische Kommission* – BGK) in 1924 for coordinating a survey of the coastal areas of the Baltic Sea. Members of the commission, which the Germans planned to use as a counter-organization against the IUGG, were Germany, Sweden, Finland, Denmark, Po-

[30] REINHARD SIEGMUND-SCHULTZE, Rockefeller and the Internalization of Mathematics between the two World Wars. Documents and Studies for the Social History of Mathematics in the 20th Century, Basel 2001, p. 89.

[31] REINBOTHE, Deutsch als internationale Wissenschaftssprache, p. 329-343.

[32] Kurjer Warszawski, 17 June 1921; Robert Haussner to the editors of Fundamenta mathematicae, 31 May 1921, in: PA AA, R 64979 (author's translation).

[33] Gustav Wahl, director of the Hamburg University Library, to the chancellor of Bratislava University, 7 April 1925, in: PA AA R 64981; Die Hamburger Universitätsbibliothek im Dienste der intellektuellen Zusammenarbeit, in: Prager Presse, 14 May 1925; Entschließung über Schriftenaustausch mit der Tschechoslowakei, in: Mitteilungen des Verbandes der Deutschen Hochschulen 5/2 (1925), p. 51.

land, Danzig, Latvia, Estonia and Lithuania. Obviously, in this area Poland accepted cooperation with Germany to a certain extent. In 1929, the Soviet Union also joined the BGK.[34]

In addition to the Swedish president Karl Rosén, the Polish astronomer and geodetic scientist Banachiewicz, member of the IAU and IUGG, was elected vice-president of the BGK for the first three years. Because German geodetic scientists occupied a leading scientific position in the BGK, German was the main language used at the conferences. But the attempt to make German the exclusive language of the BGK was prevented by scientists from other countries, thus limiting the Germans' power. Instead, French was selected as the second language. Banachiewicz in particular gave his opening speeches at the first conference in Helsinki in 1924 and at the sixth conference in Warsaw in 1932 in French.[35]

Gradually, the conflicts diminished and ties between the BGK and the IUGG were strengthened. This led to the decision to hold the 1932 session of the BGK in Warsaw.

4. German Relations with Hungary: The International Zoological Congress in Budapest 1927

While Hungary was still suffering from the boycott, German scientists tried to maintain close relations with the country. Before the war, the Hungarian Academy of Sciences had been a member of the International Association of Academies, and Hungarian scientists had joined international astronomical, geodetic, chemical and medical associations, which the Allies had now replaced with new organizations. Some German scientific societies demonstrated solidarity, holding their annual conferences in Budapest, e.g. the German Society of Pediatric Medicine in 1927 or the Astronomical Society in 1930 – using the German language of course.[36] Hungarian journals added

[34] REINBOTHE, Deutsch als internationale Wissenschaftssprache, p. 308-317.

[35] Comptes Rendus des Séances de la Conférence Géodésique. Réunie à Helsingfors du 28 juin au 2 juillet 1924. Rédigés par le Secrétaire-Général ILMARI BONSDORFF – Verhandlungen der in Helsingfors vom 28. Juni bis 2. Juli 1924 abgehaltenen Geodätischen Konferenz. Redigiert vom Generalsekretär ILMARI BONSDORFF, Helsinki 1925, p. 49 [title page in French and German]; Comptes Rendus de la Sixième Séance de la Commission Géodésique Baltique. Réunie à Varsovie du 14 au 18 juin 1932. Redigés par le Secrétaire-Général ILMARI BONSDORFF – Verhandlungen der in Warschau vom 14. bis 18. Juni 1932 abgehaltenen sechsten Tagung der Baltischen Geodätischen Kommission. Redigiert vom Generalsekretär ILMARI BONSDORFF, Helsinki 1933, p. 39-40.

[36] 38. Tagung der Deutschen Gesellschaft für Kinderheilkunde in Budapest, 11.-15.9.1927, in: PA AA, R 66120; 29. Versammlung der Astronomischen Gesellschaft, 7.-13.8.1930 in Budapest; on scientific connections between Hungary and Germany, e. g.:

extracts from articles in German, for instance the medical journal *Orvosképzés*. To promote multilingualism, including German, the *Monatsschrift Ungarischer Mediziner* (Monthly Review of Hungarian Physicians) was actually published in four languages: German, English, French and Italian. The abstracts of the articles were presented in the other three languages, respectively. In order to provide Hungarian university libraries with publications in the German language, the Emergency Association of German Science (*Notgemeinschaft der Deutschen Wissenschaft*), founded in 1920, donated numerous scientific books and periodicals with the financial support of the German Foreign Ministry.[37]

Also, international scientific congresses that did not accept the boycott were held in Budapest. Thus, the International Zoological Congress organized its first session after the war in Budapest in 1927. The decision for Budapest had already been reached before the war, but the organizers waited until the boycott had been abolished. As in former times, German, English, French and Italian were the official languages of the congress. Thus, the four papers of the opening session were presented respectively in German, English and French by zoologists from Germany, Great Britain, the U.S.A. and France. In the plenum, the nine sections and the discussions, however, German for once dominated in the contributions. A large number of German zoologists had come to this international forum in order to demonstrate the excellence of German science and the German language. Among the roughly 700 members of the congress, there were 242 Hungarians, 166 Germans and 33 Austrians. By contrast, only 35 zoologists were there from Great Britain, 33 from the U.S.A., 31 from Czechoslovakia, 23

LAJOS BARTHA, Deutsch-ungarische Beziehungen auf dem Gebiet der Astronomie in der Neuzeit, in: Wissenschaftsbeziehungen und ihr Beitrag zur Modernisierung. Das deutsch-ungarische Beispiel, ed. by HOLGER FISCHER, München 2005, p. 99-126; GÁBOR PALLÓ, Deutsch-ungarische Beziehungen in den Naturwissenschaften im 20. Jahrhundert, in: Technologietransfer und Wissenschaftsaustausch zwischen Ungarn und Deutschland. Aspekte der historischen Beziehungen in Naturwissenschaft und Technik, ed. by HOLGER FISCHER/ FERENC SZABADVÁRY, München 1995, p. 273-289; HOLGER FISCHER, Deutsch-ungarische Beziehungen in der Geographie der Zwischenkriegszeit, in: Technologietransfer und Wissenschaftsaustausch, p. 291-352.

[37] Adolf Jürgens, Notgemeinschaft der deutschen Wissenschaft (Bibliotheksausschuß), to Auswärtiges Amt, 25 January 1924, in: PA AA, R 65520; Monatsschrift Ungarischer Mediziner, in: PA AA, R 66120; a list of periodicals is contained in: PA AA, R 65521; on German book acquisitions in Hungarian libraries: JAMES P. NIESSEN, Német nyelvű könyvek beszerzése három budapesti nagykönyvtárban 1900 és 1990 között. A kulturális viszonyok és a könyvtári szereposztás 1. rész: 1900–1945 [The Acquisition of German-Language Books in Three Budapest Research Libraries between 1900 and 1990. Cultural Relations and Library Division of Labour. Pt. 1: 1900–1945], Könyvtári Figyelő [Library Review] 4 (2004), p. 851-860.

from France and 19 from Poland. In line with the composition of the participants, the linguistic breakdown of the 234 total papers (opening session, plenum, sections)[38] was as follows: 155 German, 42 English, 30 French, 5 Italian and 2 Spanish. From the Hungarians, 38 [39] chose German, 6 [7] English and 1 French. From the Czechoslovakians, 17 [19] chose German, 1 English and 2 French. Of the Polish speakers, 3 chose German, 3 [2] French and 1 English.[39] Among the German-speaking experts from Central Eastern Europe were, of course, some representatives of the German minorities. As if to counterbalance German dominance, the title page and the information on the report of the congress were published in French by the general secretary of the Hungarian committee of the conference, Ernő Csiki. The fact that in addition to universities, academies and societies from twenty-eight countries, twenty-two foreign governments had also sent delegates to the congress was certainly also a factor, given that French was the traditional language of diplomacy.[40]

5. The International Congress of Historical Sciences in Warsaw 1933

In any case, German experts as well as the German government and special federations were keenly interested in intensifying relations with the German minorities in Central Eastern and Eastern Europe in order to strengthen their position and reinforce the influence of German language, culture and science.[41] Thus, they used the international conferences to further their political ambitions.

The German preparations for the 1933 International Congress of Historical Sciences in Warsaw are an example: The German historian Karl Brandi, president of the Association of German Historians (*Verband Deutscher Historiker*), was involved with the preparations, and emphasized the advantage of German participation in the congress. He expected support from ethnic Germans in Central Eastern Europe to demonstrate a strong scientific front. Therefore, before the congress he visited representatives of the German minorities in Poland who welcomed German participation in

[38] Discussion papers are not included.

[39] The number of papers is set in brackets; some scientists presented two papers, several scientists together only one joint paper.

[40] X^e Congrès International de Zoologie. Tenu à Budapest du 4 au 10 septembre 1927. Publié par ERNŐ CSIKI, Secrétaire Général du Congrès, Budapest 1929.

[41] REINBOTHE, Deutsch als internationale Wissenschaftssprache, p. 440-444.

the Warsaw Congress as part of the German 'fight for the East' (*Kampf um den Osten*).[42] In this regard, Brandi recommended that at the congress German historians should act as a 'fighting force' (*Kampftruppe*).[43] Even if they could not prevent discussions about German-Polish and Eastern European history and war guilt, they should be prepared to interject clever arguments that serve national interests more than historical truth. Above all, they were to give special prominence to the German language in order to break the predominance of French.[44] However, they did not achieve their goal. While the official agenda of the congress avoided the discussion of current problems, in many informal discussions historians from other countries protested against the politics of the National Socialists, particularly at the universities. The Polish congress committee, however, refused to read aloud a protest declaration by the English historians, because it wanted to prevent the congress from taking on an anti-German slant.[45] Brandi was even elected vice-president of the International Historical Committee – in addition to the Polish historian Bronisław Dembiński from Poznań.[46]

The official languages of the congress were French, German, English, Italian and Spanish. Still, at the congress 61 of a total of 284 papers were held in German, compared with 149 in French, 43 in Italian, 25 in English, 3 in Spanish and 3 in Polish.[47] Although numerous participants came from

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[42] Karl Brandi, Denkschrift über den Besuch des VII. Internationalen Historiker-Kongresses in Warschau, 4 May 1933, to Preußisches Ministerium für Wissenschaft, Kunst und Volksbildung, Auswärtiges Amt, Reichsministerium des Innern, in: GStA PK (Geheimes Staatsarchiv Preußischer Kulturbesitz), I. HA, Rep. 76 Kultusministerium, Vc Sekt.1 Tit. XI Teil VI Nr.13 Bd. III, fol. 51-53, quotation fol. 53.

[43] Brandi to Preußisches Ministerium für Wissenschaft, Kunst und Volksbildung, 1 August 1933, ibid., fol. 80.

[44] Brandi, Denkschrift, fol. 52; cf. REINBOTHE, Deutsch als internationale Wissenschaftssprache, p. 433-440.

[45] German ambassador in Warsaw Hans Adolf von Moltke to Auswärtiges Amt, 30 August 1933, Brandi, Denkschrift, fol. 93-94; cf. INGO HAAR, Historiker im Nationalsozialismus. Deutsche Geschichtswissenschaft und der "Volkstumskampf" im Osten, Göttingen 2000, p. 145-146; KARL DIETRICH ERDMANN, Ökumene der Historiker. Geschichte der Internationalen Historikerkongresse und des Comité International des Sciences Historiques, Göttingen 1987, p. 199-202.

[46] VII[e] Congrés international des Sciences historiques. Varsovie (1933) [21-29 août 1933], Bulletin of the International Committee of Historical Sciences, vol. V-VIII, 1933-1936, vol. VII, pt. I, no. 26, March 1935, p. 69.

[47] From a total of 1,214 members, 600 came from Poland, 108 France, 86 Italy, 59 Germany, 51 Great Britain, 47 U.S.A., 35 Czechoslovakia, 33 Belgium, 26 Hungary, 14 Spain, 8 Soviet Union, 7 Austria; Bulletin of the International Committee of Historical Sciences, vol. VII, pt. II, no. 27, June 1935, p. 139.

Poland, the host country, of the 73 papers by Polish historians, only very few were held in the Polish language, because Polish was not one of the five official languages of the congress and only a very few historians from other countries could understand Polish.

6. The International Conference on Tuberculosis in Warsaw 1934

One year later, in 1934, the National Socialists misused the Conference of the International Union against Tuberculosis in Warsaw for propaganda purposes. They tried to influence the local press to propagandize the German medical policy, particularly the new eugenics policy, and ensured an impressive representation of German physicians and the German language. Arthur Gütt, the highest medical official in the Reich Ministry of the Interior, who had prepared the new eugenics law (*Gesetz zur Verhütung erbkranken Nachwuchses*) one year earlier, became the leader of the German delegation. The German Propaganda Ministry at once instructed the embassy in Warsaw to inform newspaper editors about German participation, particularly about this prominent expert and his medical policy. At the conference itself, the German physicians were meant to do their part to strengthen the position of the German language in the papers and discussions as well as in the conference report. This point had been explicitly decided at a special meeting of the Reich and Prussian ministries with medical institutions in Berlin.[48]

The political importance the Germans attached to the use of their language at the Warsaw conference was linked to their ambitions to reattain the status the German language had lost at preceding conferences and to restore its international prestige while serving German power politics. Before World War I, German, French and English had been the official languages of the International Tuberculosis Conferences, and German had been the dominant language.[49] When in 1928, German physicians, having been excluded from the conferences after the war, finally took part in the Conference of the International Union against Tuberculosis for the first time in Rome, the German language, previously banned, was re-admitted but did not enjoy the status of an official language equal to French and English. This circumstance was created not only by the Union's French

[48] REINBOTHE, Deutsch als internationale Wissenschaftssprache, p. 235-236.

[49] Elfte Internationale Tuberkulose-Konferenz, Berlin 22.-25. Oktober 1913. Bericht, Berlin-Charlottenburg 1914 [title page in German, French and English]; cf. REINBOTHE, Deutsch als internationale Wissenschaftssprache, p. 88-95.

general secretary, but also by the claims of the Italian and Spanish delegates, who demanded the same conditions for their languages if German was recognized as an official language of the Union.[50]

At the conferences in The Hague in 1932 and Warsaw in 1934, the executive committee of the Union settled the language dispute by a compromise. Diplomatically the term 'official languages' was dropped and substituted with the vague term 'languages in use'. In addition, a difference was drawn between languages used in scientific papers and those used for 'current information'. In view of the multilingualism in the scientific papers, besides French and English a further four languages were admitted: German, Italian, Spanish and, for the first time, Polish representing the Slavic languages. Consequently, scientific papers could be printed in one of these languages in the Union's Bulletin, with summaries in the other five. But still, official reports and the 'News of the Union' were provided only in English and French – for practicable and economical reasons, the general secretary claimed.[51] For the first time this language policy was extended to the proceedings of the International Tuberculosis Conference the Union held in 1934 in Warsaw. To facilitate communication at the conference, the principal papers were printed and distributed beforehand. Altogether, at the Warsaw conference the languages of the scientific papers were spread as follows: The 3 principal papers were presented respectively by a Polish, Italian and French physician. The paper by the Polish physician Leon Karwacki was later published in Polish and French. In the other 125 papers, the French language was prominent once again: 76 papers (around 60 per cent) were in French, 14 in Italian, 12 in German, 11 in English, 10 in Polish and 2 in Spanish. 12 Poles spoke French and 2 spoke German. Moreover, 13 Romanians and 8 Italians chose French as a lingua franca. The dominance of the French language at this and other conferences in Poland was not only attributable to the great number of participants speaking French or other Romance languages, but also to the close scientific relationship between Poland and France as well as the long-standing boycott against German science and the German language.[52] In Warsaw, the Polish physician and politician Eugenjusz Piestrzyński presided over the

[50] Bulletin de l'Union Internationale contre la Tuberculose, vol. IX, no. 4, Octobre 1932, p. 430-433 [title page in French and English].

[51] Ibid., p. 428-437; Bulletin vol. X, no. 2, April 1933, p. 132-133, 138-140; Bulletin vol. X, no. 4, Octobre 1933, p. 368-371, 376.

[52] 905 physicians came from 36 countries: Poland 486, Italy 78, France 70, Germany 37, Romania 27, U.S.A. 22, Czechoslovakia 19, Belgium 16, Soviet Union 5, Great Britain 3, Hungary 3, Austria 3; Union des Organisations Antituberculeuses de Pologne, IX^{ème} Conférence de l'Union Internationale contre la Tuberculose. Varsovie 4-6 septembre 1934, Varsovie.

conference and was appointed the Union's president for the following three years, assisted by the Polish deputy general secretary Marja Skokowska-Rudolf.

Still, the Germans attempted to improve their position and, having begun at the Warsaw Conference, after several years their activities were rewarded: Their motion to hold the International Conference on Tuberculosis in September 1939 in Berlin was agreed upon. There, German was to become one of the four official languages of the conference, equal to French, English and Italian, and represented by numerous German participants and contributions. To improve communication, the organizers intended to install a new technical system for simultaneous interpreting. Moreover, Gottfried Frey, the president of the Reich Tuberculosis Commission (*Reichs-Tuberkulose-Ausschuss*) and head of department (*Ministerialdirektor*) at the Reich Ministry of the Interior, who had become a member of the executive committee of the Union at the Warsaw Conference, was elected president of the International Union against Tuberculosis for the time after the conference in Berlin.[53] Thus, for a short time, representatives of Nazi Germany profiting from the general wish to reintegrate German scientists into international cooperation won more international renown than scientists during the Weimar Republic. However, the Tuberculosis Conference in Berlin as well as the German presidency were cancelled. The beginning of World War II with the German assault on Poland was the ruin of the collaboration.

[53] General Assembly of the International Union against Tuberculosis [9 September 1937], Bulletin de l'Union Internationale contre la Tuberculose, vol. XIV, no. 4, Octobre 1937, p. 604-607; REINBOTHE, Deutsch als internationale Wissenschaftssprache, p. 241-243. Frey, member of the NSDAP, had headed the German medical administration in the occupied territory of Poland during World War I.

IV. Reconsidering the Iron Curtain: Experts between East und West After 1945

CHRISTOPH MICK

SERVING TWO DICTATORS

GERMAN SCIENTISTS IN THE SOVIET UNION AFTER WORLD WAR II

Even before the war had ended, special task forces of the Allies were already searching for German experts involved in the development of the latest German military and civilian technologies. The Allies had no intention of penalizing these specialists for their contribution to the German war effort or for using slave labour in their production facilities, nor did they intend to subject them to an especially strict reeducation programme. The Allies wanted to profit from the knowledge of these German experts and obtain their help for the transfer of German technology to the Allied countries. An equally important consideration was to prevent leading German scientists from falling into the hands of other countries. Great Britain, France, the U.S.A. and the Soviet Union were all competing to obtain the best scientists and engineers. The Americans were able to get hold of the group of leading German rocket engineers who worked together with Wernher von Braun, Britain brought the top German nuclear physicists to Farm Hall to place them out of reach of the Soviets and France was able to coopt several experts in jet propulsion. The Western Allies only brought a few hundred German specialists to their respective countries, preferring to organize the transfer of technology on the basis of the documentation of German inventions.[1]

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[1] LINDA HUNT, Secret Agenda. The United States Government, Nazi Scientists and Project Paperclip, 1945 to 1990, New York 1991; CLARENCE G. LASBY, Project Paperclip. German Scientists and the Cold War, New York 1971; JOHN GIMBEL, Deutsche Wissenschaftler in britischem Gewahrsam, in: Vierteljahrshefte für Zeitgeschichte 38 (1990), p. 459-483; JOHN GIMBEL, Science, Technology and Reparations, in: American Policy and the Reconstruction of West Germany, 1945-1955, ed. by JEFFRY M. DIEFENDORF/ AXEL FROHN/ HERMANN-JOSEF RUPIEPER, Cambridge 1993, p. 175-196; MARIE-FRANCE LUDMANN-OBIER, Die Kontrolle der chemischen Industrie in der französischen Besatzungszone 1945-1949, Mainz 1989.

In contrast, the Soviet programme relied much more on the cooperation of German specialists. Between 1945 and 1947, around three thousand German experts were brought to the Soviet Union to work in research laboratories and special research factories. Almost all of the specialists had technical training, but only a minority of them had a university degree. Their areas of expertise ranged from rocket research and nuclear science to optics and aviation. Most of the experts had previously joined one of the research laboratories set up in the Soviet Zone of Occupation (SOZ), but only a few of them had actually intended to leave Germany. While some nuclear scientists were brought to the Soviet Union in 1945, most of these specialists were deported in a single memorable night in the autumn of 1946. On the night of 21 to 22 October 1946, some 2,300 experts and their families were summarily brought to trains waiting to take them to the Soviet Union.[2]

This essay examines the legitimization strategies of these experts working for two opposing totalitarian dictatorships and how they were viewed by the Soviet authorities. It contributes to an ongoing discussion of the mentality of German experts in the twentieth century, their political views and their thoughts about the relationship between their research and the application of its results.[3] I will start with some general remarks on the relationship between German experts and the Nazi government.

1. Ideology and Politics

The majority of German engineers and scientists were conservative and patriotic. While some were staunch Nazis, most considered themselves to be apolitical. Even if they did not agree with National Socialism, they only resisted if ideological interventions in their research were incompatible

[2] On life and work of the German specialists in the Soviet Union, see CHRISTOPH MICK, Forschen für Stalin. Deutsche Fachleute in der sowjetischen Rüstungsindustrie, 1945-1958, München 2000. See also ULRICH ALBRECHT/ ANDREAS HEINEMANN-GRÜDER/ AREND WELLMANN, Die Spezialisten. Deutsche Naturwissenschaftler und Techniker in der Sowjetunion, Berlin 1992; MATTHIAS UHL, Stalins V-2. Der Technologietransfer der deutschen Fernlenkwaffentechnik in die UdSSR und der Aufbau der sowjetischen Raketenindustrie 1945 bis 1959, Bonn 2001.

[3] KLAUS HENTSCHEL, The Mental Aftermath. The Mentality of German Physicists 1945-1949, Oxford 2007; Science in the Third Reich, ed. by MARGIT SZÖLLÖSI-JANZE, Oxford 2001; UTE DEICHMANN, Flüchten, Mitmachen, Vergessen. Chemiker und Biochemiker in der NS-Zeit, Weinheim 2001; Rüstungsforschung im Nationalsozialismus. Organisation, Mobilisierung und Entgrenzung der Technikwissenschaften, ed. by HELMUT MAIER, Göttingen 2002.

with their professionalism.[4] What Alan D. Beyerchen has said of the German physicists also holds true for the applied scientists and engineers: 'The prevailing majority of scientists in the Third Reich were neither for nor against the National Socialists. They were merely interested in nonintervention in their technical affairs.'[5] These were highly qualified experts who voluntarily placed their creativity at the service of the German military machine.[6]

This 'self-mobilization' (Helmuth Trischler) for the Third Reich can partly be explained by the experiences of the preceding decade. The Weimar Republic had failed to meet the political and professional expectations of these experts. Like most members of the middle classes, the experts were highly patriotic and felt humiliated by Germany's defeat and its consequences. They believed in a strong and powerful Germany and most were inclined towards the political right. Moreover, the Treaty of Versailles had limited military research and the financial shortages were affecting the professional and private lives of scientists and engineers. Many had no jobs and there were no funds available for ambitious research projects. All this changed with the advent of the Third Reich. Applied science was held in high esteem and enormous sums were invested in military research.[7]

Most experts became loyal citizens of the Third Reich, offering their talents to the Nazi government. Hitler was gearing up for war, and scientists and engineers were kept busy developing airplanes and anti-aircraft

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[4] HELMUTH TRISCHLER, Self-Mobilization or Resistance? Aeronautical Research and National Socialism, in: Science, Technology and National Socialism, ed. by MONIKA RENNEBERG/ MARK WALKER, Cambridge 1994, p. 72-87, p. 78-79; KARL-HEINZ LUDWIG, Technik und Ingenieure im Dritten Reich, Düsseldorf 1974, p. 105; GERD HORTLEDER, Das Gesellschaftsbild des Ingenieurs. Zum politischen Verhalten der technischen Intelligenz in Deutschland, Frankfurt am Main 1970, p. 165; PAUL ERKER, Industrie-Eliten in der NS-Zeit. Anpassungsbereitschaft und Eigeninteresse von Unternehmern in der Rüstungs- und Kriegswirtschaft 1936–1945, Passau 1993.

[5] ALAN D. BEYERCHEN, Wissenschaftler und Hitler. Physiker im Dritten Reich, Köln 1980, p. 266 (author's translation); JONATHAN HARWOOD, 'Mandarine' oder Außenseiter? Selbstverständnis deutscher Naturwissenschaftler (1900–1933), in: Sozialer Raum und akademische Kulturen. Studien zur europäischen Hochschul- und Wissenschaftsgeschichte im 19. und 20. Jahrhundert, ed. by JÜRGEN SCHRIEWER/ EDWIN KEINER/ CHRISTOPHE CHARLE, Frankfurt am Main 1993, p. 183-212.

[6] TRISCHLER, Self-Mobilization, p. 83-84.

[7] HARWOOD, 'Mandarine' oder Außenseiter, p. 74-76; ANDREAS HEINEMANN-GRÜDER, 'Keinerlei Untergang'. German Armaments Engineers during the Second World War and in the Service of the Victorious Powers, in: Science, Technology and National Socialism, p. 30-50, p. 39-41; HEINRICH ADOLF, Technikdiskurs und Technikideologie im Nationalsozialismus, in: Geschichte in Wissenschaft und Unterricht 48 (1997), p. 429-444, p. 431-433.

weapons, rockets and substitute materials, tanks and gas chambers. The professional organizations of engineers and managers played an important role in formulating the technological objectives of armament research and development, and in implementing their production. It is true that the Nazis tried to transform the experts into National Socialists, but ideological conformity was not essential for a scientific career in the Third Reich. The treatment of scientists and engineers under Nazi rule confirmed their self-perception as being 'detached from political affairs'.[8] The NS system, however, never completely released the engineers 'from its tentacles, as technology was used neither for the welfare of humanity nor for the welfare of the nation, but exclusively for destruction, with an increasing use of terrorist methods'.[9]

This had certainly been the experience of the rocket scientists, who otherwise enjoyed a high reputation. After the Royal Air Force bombed the buildings of the Army Research Centre (*Heeresversuchsanstalt*) in Peenemünde, the research facilities and part of production were moved underground. In Nordhausen, slave labourers from Dora, an external camp of the Buchenwald concentration camp, worked in the subterranean *Mittelwerke*, where A-4 (V-2) rockets were produced. Thousands of prisoners died of exhaustion or were executed by the SS guards. The leading rocket specialists regularly visited the production tunnels and saw the suffering of the slave labourers.

However, the experts were mostly interested in increasing production; they were less concerned about the human cost.[10] Wernher von Braun fought for scarce resources to realize his plans. Later he defended himself by saying that he had only wanted to construct a lunar rocket. Von Braun was briefly arrested when the *Gestapo* (German secret police) learned about private conversations in which he had indeed said that his main aim was to reach outer space. After the war, the rocket scientists referred to his arrest as proof that they had been using the Nazi regime to further their own peaceable plans. The reality was a bit different, however. During World War II, the purpose of rockets was to destroy human life. After the war, von Braun and his team repudiated any responsibility for the military

[8] BEYERCHEN, Wissenschaftler und Hitler, p. 276; MARK WALKER, The Nazification and Denazification of Physics, in: Technology Transfer Out of Germany After 1945, ed. by MATTHIAS JUDT/ BURGHARD CIESLA, Reading 1996, p. 49-60, p. 56-58.

[9] LUDWIG, Technik und Ingenieure im Dritten Reich, p. 287-301, quote on p. 351 (author's translation).

[10] BURGHARD CIESLA, Das 'Project Paperclip'. Deutsche Naturwissenschaftler und Techniker in den USA (1946 bis 1952), in: Historische DDR-Forschung. Aufsätze und Studien, ed. by JÜRGEN KOCKA, Berlin 1993, p. 287-301, p. 294.

use of rockets and the treatment of slave labourers, although recent research has shown that the prisoners had been explicitly requested by Walter Dornberger, who was responsible for the rocket programme in the Army Weapons Agency (*Heereswaffenamt*), and Arthur Rudolph, a leading member of the rocket team.[11]

In their recollections, the experts hardly touched on such moral problems. Nobody admitted to knowing about the Nazi crimes. The Soviet rocket engineer Boris Chertok asked Irmgard Gröttrup, the wife of the leader of the German rocket team in the Soviet Union Helmuth Gröttrup, how the scientists had dealt with the fact that the prisoners in Nordhausen had worked under terrible conditions with barely any chance of survival. She denied that the majority of the experts had known much about it.[12] They perceived their work as being free from ideology and justified it as a service to the people and to the fatherland. Not they, but the national government was responsible for the use of their inventions and innovations.[13]

2. Survival and Professional Interests

The Third Reich collapsed in May 1945. Germany was no longer a sovereign state. In the difficult period immediately after the war, the experts concentrated on surviving and on ensuring the survival of their families. Nobody knew what plans the Allies had for Germany and whether armament experts would be held to account for their contribution to the German war effort. As mentioned at the outset, special Allied task forces were

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[11] RAINER EISFELD, Mondsüchtig. Wernher von Braun und die Geburt der Raumfahrt aus dem Geist der Barbarei, Reinbek 1996, p. 87-89; MICHAEL J. NEUFELD, Die Rakete und das Reich. Wernher von Braun, Peenemünde und der Beginn des Raketenzeitalters, Berlin 1997, p. 221-223; ERNST STUHLINGER/ FREDERICK ORDWAY, Wernher von Braun. Aufbruch in den Weltraum, München 1992, p. 72-74. See also ERHARD PACHALY/ KURT PELNY, Konzentrationslager Mittelbau-Dora, 1943-1945, Berlin 1990; JEAN MICHEL, Dora, London 1979; MICHAEL J. NEUFELD, Von Braun. Dreamer of Space, Engineer of War, New York 2007.

[12] BORIS CHERTOK, Rakety i liudi, Moskva 1994, p. 132-133. A designer of aircraft engines, Ferdinand Brandner also said that he had never heard of the German death camps. FERDINAND BRANDNER, Ein Leben zwischen den Fronten. Ein Ingenieur im Schußfeld der Weltpolitik, 2nd edition, München 1976, p. 88. Similar comments were made by the German nuclear scientists in Farm Hall. See Operation Epsilon. Die Farm-Hall-Protokolle oder die Angst der Alliierten vor der deutschen Atombombe, ed. by DIETER HOFFMANN, Berlin 1993, p. 33.

[13] Cf. REINHARD SIEGMUND-SCHULTZE, The Problem of Anti-Fascist Resistance of 'Apolitical' German Scholars, in: Science, Technology and National Socialism, p. 312-323.

employed to hunt down the most important specialists, who became part of the war booty. Less prominent scientists had two options: They could offer their services to one of the Allies or they could try to hide their qualifications until the situation had clarified. Most experts decided to collaborate when they realized the extent of the victorious powers' interest in their knowledge and expertise. Immediately after the war, calories were more tempting than money. Science went 'in search of bread'. Cooperation with the Allies offered the quickest way out of postwar misery.[14] Many experts also did not exclude the Soviet option. The physicist Heinz Barwich justified his decision to go to the Soviet Union as follows: 'I was thirty-three years old, married, had three small children, a fourth was expected. And I had no job. This decision was therefore not difficult for me.'[15]

However, other experts had more difficulties in justifying their decision to work for the former enemy. If their work involved armament research, such weapons could be used to threaten Germany. Soviet officials therefore told rocket specialists that their skills were needed to develop rockets for postal transport or for space flights. However, while still working in the SOZ the Germans were obliged to

> 'recognize with great uneasiness that the original purpose, namely the development of postal and lunar rockets, was not pursued at all. The tasks were completely geared to military applications and I was forced to realize that there could be no way out for me, the dice had fallen. […] We had become a well-trained, intellectually agile community which loved its work, which believed like any other group of engineers in a similar position that the leadership of the state fairly and wisely disposes of the results of the work'.[16]

Manfred von Ardenne reported that initially participation in the atomic bomb project was not mentioned to him. The research targets only changed after the first atomic bomb had been dropped on Hiroshima. Von Ardenne did try not to become involved in the project, but after a while he changed his mind. He said that he realized that a Soviet atomic bomb would help to create a balance of power and therefore to secure peace. 'This view formed for all of us the moral justification for our cooperation in creating the

[14] KLAUS-DIETMAR HENKE, Die amerikanische Besetzung Deutschlands, München 1995, p. 750.

[15] HEINZ BARWICH/ ELFI BARWICH, Das rote Atom, München 1967, p. 21 (author's translation).

[16] WERNER ALBRING, Gorodomlija. Deutsche Raketenforscher in Rußland, Hamburg 1991, p. 56-58 (author's translation).

technical conditions for the construction of nuclear weapons.'[17] This is hard to believe. Von Ardenne, who went on to become one of the best-known figureheads of the GDR's scientific community after his return to East Germany, had not voluntarily opted to work for the Soviet side in 1945. The GDR authorities kept a letter in which von Ardenne had offered his services to the Americans. This option was no longer open to him when the Red Army arrived in Berlin before the American troops. He had no other choice but to accept the offer to work in the Soviet Union.[18]

Other experts saw their work for the Soviet Union as part of the German reparations for the war damage.[19] A German engineer in the SOZ promised in August 1945: 'The undersigned has voluntarily placed his full capacity for work at the service of the reparations, and as the head of the engineer's office of the Soviet Technical Governmental Committee does direct his efforts to this end.'[20] Manfred Gerlach, an aircraft engine designer, stated that he had seen his work from the outset as a 'valuable contribution to the reparation of the German war guilt'.[21]

The truth of such statements must be called into question. They were often made in connection with demands to return to Germany. The experts argued that they had contributed enough to the reparations. They felt victimized and saw no reason why they should pay with their freedom – on behalf of the German people – for the crimes of the Third Reich. The nuclear scientists in British internment camps reacted similarly. Their British contact person noted in summer 1945 that the internees had not realized 'that they are members of a vanquished nation'.[22]

The experts' perception of their profession as apolitical facilitated cooperation with the Stalinist regime. The Soviet leadership focused on the scientific knowledge and technical abilities of the experts. Like their Soviet

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[17] MANFRED VON ARDENNE, Ein glückliches Leben für Technik und Forschung. Autobiographie, Zürich 1972, p. 194-195, quote on p. 205 (author's translation). See also the report on German nuclear scientists in the Soviet Union, September/October 1947 in the Bundesarchiv Koblenz (BAK), OMGUS, AGTS, 38/1.

[18] VON ARDENNE, Ein glückliches Leben, p. 205.

[19] WERNER HOLZMÜLLER, Ein Physiker erlebt das 20. Jahrhundert, ed. by MANFRED HEINEMANN, Hannover 1993, p. 76.

[20] Memorandum of the (German) director of the engineer's office of the Soviet Technical Governmental Committee in the Soviet Zone of Occupation (Electrotechnics), 1 August 1945; Archive of the Russian Academy of Sciences [Arkhiv Rossiiskoi Akademii Nauk (ARAN)], f. 596, op. 2, d. 139, l. 1-22 (author's translation).

[21] Gerlach to Minister of Internal Affairs (MVD) Sergei N. Kruglov, 23 June 1948; Russian State Archive of the Economy [Rossiiskii Gosudarstvennyi Arkhiv Ėkonomiki (RGAĖ)], f. 8044, op. 1, d. 1797, l. 21-27.

[22] Operation Epsilon, p. 208-209 (author's translation).

colleagues, the German experts were not involved in any decisions on how their inventions would be used. While Soviet experts at least participated in the organization of the research and the setting of technological targets, most German specialists had little say in either. This had been different in the Third Reich, and even in the SOZ their influence had been greater. In the Soviet Union, the leaders of the German research teams tried to influence the allocation of resources or decisions on concrete technological targets. However, this only succeeded if a powerful Soviet 'patron' exerted his influence.[23]

The situation of the experts also differed in another respect from their position in the Third Reich and from that of Soviet specialists. Like their Soviet colleagues, the Germans were limited to their narrow field of specialization. However, the Soviet government expected ideological conformity, loyalty and a strong work ethos from Soviet experts. They were required to support the decisions of the leadership unconditionally, inasmuch as such decisions were claimed to be identical with the interests of the state, the nation and the future of socialism. Soviet experts thus also had a patriotic or ideological motivation for their work. Such motivations were absent in the German collectives. They continued to be strangers who had been deported to the Soviet Union, and the authorities made no effort to integrate them. They were confined to their laboratories and factories and as far as possible kept isolated from Soviet life.[24]

The German experts interpreted their deportation to the Soviet Union as a breach of contract. Most would have willingly put up with the 'fear of losing their livelihood and the identity crises'[25] inherent in working in Germany at the time and would have gladly renounced the 'reorientation' involved in working in the Soviet Union. Only a minority was willing to go to the Soviet Union for a limited period. However, the deportation was perceived as 'injurious to the honour' of those who 'had already decided that they would not resist a later transfer to the U.S.S.R.'.[26]

Some scientists strove to realize their projects and were ready to work for any state willing to give them this opportunity. In the research laboratories in the SOZ and in the first years in the Soviet Union, they constantly tried to solve problems and to overcome technical difficulties. They asked

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[23] MICK, Forschen für Stalin, p. 179-181.

[24] Ibid., p. 188-190, 220-222.

[25] ALBRECHT/ HEINEMANN-GRÜDER/ WELLMANN, Die Spezialisten, p. 185-187.

[26] Protest letter, 29 October 1946, in: IRMGARD GRÖTTRUP, Die Besessenen und die Mächtigen. Im Schatten der roten Rakete, Hamburg 1958, p. 243-244 (author's translation).

for help to realize their plans and deplored obstructions by Soviet rivals and the slowness of communication.[27]

The rocket scientists in the U.S.A. held similar views. Wernher von Braun tried to resume the work he had done in the Third Reich. Rocket development was big science and very expensive, but had no commercial uses. It was only encouraged because of its military usefulness. Von Braun worked to preserve the cohesion of the German team in the United States to ensure that he played the leading role in improving the V-2. In the end, the members of the rocket team working in the U.S.A. turned out to be far more successful, both personally and professionally, than their colleagues in the Soviet Union.

However, this was not a foregone conclusion. In 1946, the rocket researchers in the SOZ had better working conditions than their rivals working in the U.S.A. or under British control, and in 1946 Gröttrup had more influence on the scope of his work than von Braun did. The Soviet leadership had realized the military potential of rocket technology and redirected vast resources to the development and production of rockets, while the United States wanted to profit from German knowledge, but did not yet have a programme for future developments. Immediately after the forced transfer of the German team to the Soviet Union, the leading members of the rocket group were highly motivated – despite being deeply dissatisfied by their move to Moscow and later to the island Gorodomlia in Lake Seliger. In the end, Gröttrup failed to realize his ambitious plans, as the Soviet leadership wanted the German experts primarily to assist with the reconstruction and transfer of German technology and wished to profit from their creativity without giving them any responsibility for implementing their ideas. In contrast to Wernher von Braun working in Peenemünde and later in Houston, the German groups in the Soviet Union were not involved in the making of rockets. These tasks were reserved for the local experts.[28]

Not only prominent scientists, but also engineers and technicians did not much care whom they were working for. One expert is quoted in a Soviet trade union report:

> 'Since my early years I was educated under the Hitler government, with National Socialist principles. I am sticking to these beliefs, and I do not intend to change them. It does not matter at all for whom and in which country I work as a specialist. It also does not matter whether I work for military purposes and for the domestic needs of the country. The most important thing for me is to have a job and an income. The Hitler government did not bring bad things to

[27] PAVEL KNYSHEVSKII, Dobycha. Tainy germanskikh reparacii, Moskva 1994, p. 75.

[28] MICK, Forschen für Stalin, p. 137-139.

> Germany. Hitler got rid of unemployment and gave every German work and the right to live.'[29]

National Socialist convictions and an unreserved willingness to cooperate with the Soviet Union were compatible. A good example of this is Ferdinand Brandner, a designer of aircraft engines who had been an ardent National Socialist. In Kuibyshev, he made himself unpopular with his colleagues because he worked hard to develop a Turboprop engine. 'My will to cooperate was respected in every way and was rewarded.' Brandner hoped that unconditional cooperation would improve his chances of a quick return to Germany.[30] This view was shared by other specialists. A delegate of the Soviet trade unions reported on a German aviation expert in factory no. 96 with a 'reactionary' world view, who worked very productively because he hoped this would help him return to Germany.[31]

Soviet reports categorized a considerable number of German experts as fascists. The reports did not differentiate between nationalist, reactionary and fascist. For the Soviet authorities they were all the same. It is true that quite a number of the experts still shared National Socialist views.[32] Defying the Soviet efforts to reeducate them, some openly expressed National Socialist views. In factory no. 589, part of the system of the Ministry of Armaments, some Germans celebrated Hitler's birthday in April 1948. The specialist K. is quoted with the words: 'I cannot live among enemies.' It is interesting that K.'s hostile attitude does not appear to have affected his work. He is described in the report as a specialist who worked well.[33]

The articulation of National Socialist views was not always an expression of deep-seated beliefs, but could also be a form of protest against ideological indoctrination. The experts did not want to be confronted with the crimes of the Third Reich and mistrusted the Soviet interpretation of events. In factory no. 2 of the system of the Ministry of Aviation Industry, the Germans boycotted films on World War II which showed the 'fight of the Soviet people against Hitler's Germany'. After listening to political speeches by Soviet propagandists, the audience asked questions 'of a reac-

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[29] Quote from Kurt Schmidt. Report on the German Specialists in NII-380, 13 June 1949; State Archive of the Russian Federation [Gosudarstvennyi Arkhiv Rossiiskoi Federatsii (GARF)], f. 5451, op. 43, d. 767, l. 131-136 (author's translation).

[30] BRANDNER, Ein Leben zwischen den Fronten, p. 44-46, 162 (author's translation).

[31] Report of Iu. P. Osadchii on the situation in the factories no. 326 and 197 of the Ministry of the Industry of Means of Communication (MPSS) and factory no. 96 of the Ministry of Chemical Industry (MKhP), 14 April 1949; GARF, f. 5451, op. 43, d. 767, l. 157-166.

[32] On German physicists in general, see HENTSCHEL, The Mental Aftermath.

[33] Report of V. M. Tararov, 31 May 1948; GARF, f. 5451, op. 43, d. 668, l. 181-183.

tionary nature'. The specialists criticized the loss of Germany's eastern territories and expressed their distrust concerning the building of socialism in the Soviet Union and the Soviet peace policy.[34] A representative of the trade unions noted disappointedly in November 1949: 'Up to now, not a single Nazi has renounced his National Socialist views.'[35]

3. Self-organization and Resistance

As far as the authorities were concerned, the German experts had not lost their middle-class conditioning even after seven years in the Soviet Union, but the industrial ministries and the Soviet leadership did not much care. They wanted to exploit the experts and placed little weight on political reeducation. The groups of experts remained a foreign body in the Soviet Union and were not only isolated from Soviet research, but also – as far as possible – from Soviet society. This unique position protected the specialists from ideological indoctrination and the terror of Stalinism, and made it possible to establish some forms of self-government. Officials responsible for agitation and propaganda (*agitprop*) could not count on the factory management or industrial ministries to support their propaganda efforts, and attempts to split the German collectives into workers and progressive experts on the one side and class enemies and reactionary specialists on the other side failed. The representatives of the party and the trade unions fought against middle-class and counter-revolutionary views, but their hands were tied. The industrial ministries were exclusively interested in research results, not in political views.[36]

The German collectives demonstrated a relative, albeit precarious cohesion, and reacted with hostility when the authorities interfered in the internal relationships of their community.[37] Members of the Socialist Unity Party of Germany (in German: *Sozialistische Einheitspartei Deutschlands*, SED) suffered just as much as their conservative or nationalist colleagues from cramped housing conditions, reduced freedom of movement, the

[34] Olekhnovich and Rabinovich on the political and cultural work among the German specialists in 1948-49, 28 December 1949; GARF, f. 5451, op. 43, d. 854, l. 119-136.

[35] Kolychenkov (factory no. 2) to Afanas'ev, 18 November 1949; RGAĖ, f. 8044, op. 1, d. 6441, l. 30-34 (author's translation). Olekhnovich to Deputy Minister of the Aviation Industry M. M. Lukin and B. Rzhanov, 23 November 1949; RGAĖ, f. 8044, op. 1, d. 6441, l. 35-36.

[36] MICK, Forschen für Stalin, p. 240-242.

[37] German specialists of NII-160, Friazino, to the chairman of the VCSPS, V. V. Kuznetsov, 18 June 1948; GARF, f. 5451, op. 43, d. 669, l. 39-40ob.

impossibility of vacations in Germany, the lack of rights and inadequate social security.[38] The experts turned to their professional superiors as representatives of their interests. Their isolated and uncertain situation produced a sense of common fate, which overlaid the differences between scientists, engineers and workers.

The self-organization of the Germans was born out of necessity. They created committees which represented their interests in negotiations with the Soviet management.[39] In factory no. 2, they elected a *Vertrauensrat* (council of trust) – following practice in the Third Reich – in May 1947, which the Soviet trade union representative described as an 'organization of openly fascist character'. The MGB instructed the factory management to dissolve the council. However, it continued to exist as the 'Society for the Defence of German Interests'.[40]

The creation of councils of trust was an expression of – *horribile dictu* in the Soviet Union – uncontrolled self-organization, and could not be tolerated by those Soviet organizations responsible for political control. The Germans were finally forced to dissolve this body. On Gorodomlia, the Germans had to surrender even their typewriters to prevent them from duplicating leaflets and electoral slips.[41] However, the councils of trust are only one example of the organizational repertoire available to the Germans. More important and more persistent were the funds for mutual help. Their administration lay in the hands of the leading specialists – fascists in the view of the trade unions.[42] The trade unions later forced the collectives to accept new statutes which placed such funds under the control of the trade union committee.

In factory no. 2, the positions of 'former Nazis' continued to be strong – at least in the opinion of the management – even after the fund for mutual help was reorganized. The new statute had brought no fundamental changes, and in 1949 such organs of self-government still functioned ac-

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[38] Murashev (factory no. 1) to Afanas'ev, 5 December 1949; RGAĖ, f. 8044, op. 1, d. 6440, l. 38-55.

[39] Report of Osadchii on the situation in factories no. 96, 326 and 127, 14 April 1949; GARF, f. 5451, op. 43, d. 767, l. 157-166.

[40] Report Gusinskii on German specialists in factory no. 2 of the MAP, May 1948; Russian State Archive for Social-Political History [Rossiiskii Gosudarstvennyi Arkhiv Sotsial'no-Politicheskoi istorii (RGASPI)], f. 17, op. 132, d. 4, l. 40-48 (quoted in KNYSHEVSKII, p. 67-76). See also the statute of the funds for mutual help of factory no. 2; GARF, f. 5451, op. l 43, d. 668, l. 269-287.

[41] KURT MAGNUS, Raketensklaven. Deutsche Forscher hinter rotem Stacheldraht, Stuttgart 1993, p. 187.

[42] Osadchii to Rzhanov, 20 October 1949; GARF, f. 5451, op. 43, d. 768, l. 15-22.

cording to their own rules. The leaders of the German collectives controlled the funds and succeeded in preserving their authority.[43]

Teams which cooperated for a long time had often been deported together. They retained their corporate identity, even if their old company had ceased to exist.[44] Experts who joined these groups at a later date found it hard to integrate, especially if they breached the solidarity of the group in dealings with the authorities.[45] In factory no. 96 of the Ministry of Chemical Industry, a specialist was bullied by his colleagues because he was highly motivated and openly antifascist. On the 'initiative of the reactionary specialists' he was cut dead by most of the Germans, who stopped speaking to him or greeting him.[46] Kurt Berner reports from the Scientific Research Institute NII-1323 (Nauchno-Issledovatel'skii Institut – NII) that very few German specialists supported the Soviet Union unconditionally and that they were cut dead by all the others.[47]

To a certain extent, representatives from the trade unions did manage to penetrate the German collectives, but they were unable to disband the old structures completely. Such infiltration succeeded when existing collectives and work groups were split up and the German experts worked in predominantly Soviet teams. It was only then that leaders of German teams lost their influence. These teams, however, were only dissolved when the managers expected that this would improve productivity and increase the likelihood of meeting the targets. No team was reorganized for political reasons. In factory no. 393, the German collective was only reorganized when the management was dissatisfied with the results of their work. The director thought that the influence 'of reactionary elements' had had a negative impact on the productivity of the whole group.[48]

Their shared fortunes strengthened the cohesion of the German collectives in dealing with the authorities. This does not mean that there were no

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[43] Service Department in factory no. 2 (Kolychenkov) to Afanas'ev, 18 November 1949; RGAĖ, f. 8044, op. 1, d. 6441, l. 30-34. Olekhnovich to Lukin and Rzhanov, 23 November 1949; ibid., l. 35-36.

[44] BURKHARD CIESLA, Die Transferfalle. Zum DDR-Flugzeugbau in den fünfziger Jahren, in: Naturwissenschaft und Technik in der DDR, ed. by DIETER HOFFMAN/ KRISTIE MACRAKIS, Berlin 1997, p. 193-211, p. 205-206.

[45] Lübke to the director of the branch of NII-400 Maksimov, 25 April 1949; RGAĖ, f. 8899, op. 1, d. 1271, l. 101-105.

[46] Report of Osadchii on the situation in factories no. 96, 197 and 326. 14 April 1949; GARF, f. 5451, op. 43, d. 767, l. 157-166.

[47] KURT BERNER, Spezialisten hinter Stacheldraht. Ein ostdeutscher Physiker enthüllt die Wahrheit, Berlin 1990, p. 184-185.

[48] Gusinskii and Osadchii on the situation in factory no. 393, April 1948; RGASPI, f. 17, op. 125, d. 591, l. 146-152.

differences and disagreements. However, the conflicts were not between antifascists and 'fascists', but over other contentious issues. The Germans primarily quarrelled about the best strategy to return to Germany as quickly as possible. Other conflicts involved salaries and different standards of living, stemmed from the quarrelsome disposition of some of the members of the group or arose in connection with family disputes.

To a certain degree, German experts were able to resist the impositions of the Stalinist regime.[49] They quickly learned how to play the system, drawing on their experiences in the Third Reich. Both totalitarian systems were polycratic. The experts appealed to Stalin or other party and state leaders if the factory management or the industrial ministries ignored their protests. These complaints forced the factories and ministries to justify their measures.[50]

The specialists could afford to be more critical than Soviet citizens. They even quarrelled with cadres of the security organs.[51] In the end, only a few dozen German experts were arrested, although the party committees and the security organs had informers within the German groups who reported countless anti-Soviet conversations. Actions which would have resulted in Soviet citizens being deported to Kolyma (in the *Gulag*) for years usually did not lead to arrests. However, the return of the most outspoken critics to Germany was delayed. The Ministry of State Security (MGB) forced such persons to stay in the Soviet Union for up to two years longer. The security organs thought that this would be punishment enough, and the experts did indeed perceive it as a heavy punishment.[52]

If work discipline was violated, the Germans were given a warning or had to pay fines. However, there were also serious cases in which the Soviet courts imposed tough sentences. The ringleaders of acts of insubordination could expect to be particularly severely punished unless they were indispensable experts whose professional knowledge was essential for the success of their projects. Two specialists were arrested in 1950 in factory no. 108 and in Obninsk as 'ringleaders' of a half-day strike and both were

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[49] TRISCHLER, Self-Mobilization, p. 72-73.

[50] The German specialist Heinz Lübke to Iosif V. Stalin, 10 October 1949; RGAĖ, f. 8899, op. 1, d. 1271, l. 100. Minister of the Ship-building Industry Aleksei A. Goregliad to Deputy Chairman of the Council of Ministers Ivan F. Tevosian, 9 January 1950; ibid., l. 98. G. Aleksenko (MPSS) to Minister of Foreign Affairs (MID) Andrei Ia. Vyshinskii, 19 May 1948; Archive of Foreign Policy of the Russian Federation [Arkhiv Vneshnei Politiki Rossiiskoi Federatsii (AVP RF)], f. 82, op. 35, d. 61, l. 42.

[51] BARWICH/ BARWICH, Das rote Atom, p. 47-48, 119-120, 137.

[52] See the letters of German experts and members of their families to Stalin, the Council of Ministers and other Soviet institutions, GARF, f. 5446, op. 59, d. 4830, l. 1-43.

sentenced to twenty-five years in prison.[53] In factory no. 1, an employee with a 'hostile attitude' was sentenced to ten years in prison.[54]

In other cases, even strikes were not penalized. The contracts of the experts in NII-380 ended in May 1949, but the director of the institute ignored the German demands to return home and was not willing to negotiate the terms of a new contract. For a period of one week, thirteen specialists did not come to work. Only when the Industrial Ministry intervened and the contracts were extended by one year did the Germans resume work again.[55] After the new contract had ended, the same situation recurred.[56]

Some of the more ambitious experts, conscientious engineers and skilled workers despaired of Soviet slovenliness. Another quite strong group did work to rule but no more. Already in 1947 and 1948, on Gorodomlia some experts started to control their creative output and reduced their efforts. The authorities interpreted this as a deliberate attempt to prevent the fulfilment of the plan. More intense controls and a strict work discipline defused this problem, although some Germans continued to show forms of passive resistance in 1949.[57]

During the first two years, the specialists had hoped to be able to earn the right to return home by dint of hard and successful work. When their old projects were finished, the experts received extra money, but they were still not allowed to return. Instead, new targets were set. The German collectives disagreed on how best to react. Some experts continued to hope that unconditional cooperation would give them a better life and a better chance of returning to Germany. Brandner introduced a strict working regime in his department to – as he put it – stave off the despair of the other members of his group. However, his measures elicited hatred and mistrust. Brandner believed that 'only our work, our technical achievement' would guarantee a return to Germany.[58] Some of the members of his group held different views. Protests by former colleagues who had moved

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[53] ANDREAS HEINEMANN-GRÜDER, Die sowjetische Atombombe, Berlin 1990, p. 111; BARWICH/ BARWICH, Das rote Atom, p. 52.

[54] Gribanov (MID) to the director of the Department for the Affairs of Prisoners of War and Internees of the Ministry of Internal Affairs (MVD), A. Z. Kabulov, 14 January 1953; AVP RF, f. 82, op. 41, d. 66, l. 13.

[55] Report on the German specialists in NII-380, 13 June 1949; GARF, f. 5451, op. 43, d. 767, l. 131-136.

[56] N. V. Popova (All-Union Central Council of the Trade Unions, VCSPS) to Nikolai A. Bulganin, 8 June 1950; GARF, f. 5451, op. 43, d. 855, l. 50-52.

[57] Report of Osadchii on NII-88, 14 June 1949; GARF, f. 5451, op. 43, d. 767, l. 167-172.

[58] BRANDNER, Ein Leben zwischen den Fronten, p. 202.

to the Federal Republic of Germany were later to prevent Brandner from being appointed to a top position in the company Humboldt-Deutz in the 1950s.[59]

Brandner and other specialists who continued to work hard to realize their projects were despised by other experts because it was felt that they created a rift in the group's solidarity against the Soviet authorities. In the first two to three years, a commonly held view among many of the experts was that the earlier they fulfilled the plan, the earlier they could return home.[60] In 1950, the rocket specialists were therefore doubly frustrated. On the one hand, their plans were delayed and insufficient resources were provided, and on the other their contribution to the reconstruction of the A-4 (V-2) and their new ideas had not been rewarded with the permission to return home.[61]

The uncertainty of their situation affected the mood in the groups.[62] In spite of their similar fate, the specialists reacted differently to their enforced stay in the Soviet Union. Some came to terms with their situation, others were depressed or bitter. For Kurt Magnus from the rocket team, these years were not, actually, a time of need, but of tantalizing insecurity and fear.[63] He saw himself as living in a 'Gulag-de-luxe'.[64] Even the lively cultural life on Gorodomlia became a contentious issue. Not all Germans enjoyed the sport events, the amateur theatricals and concerts. They feared the Russians would believe that the Germans were now reconciled with their fate and no longer wanted to return to Germany.[65]

The German experts developed effective strategies to convince the authorities that it would be better to let them return to Germany. Being creative – this was clear to many, but by no means to all Germans – meant extending their stay in the Soviet Union. Over the years, dissatisfaction grew and the work ethic sank. After 1949, many leading scientists did not take on new responsibilities. Like their subordinates, they wrote letters of protest to the authorities and did everything they could to become a liability for the factories and ministries. Most experts worked with little enthusiasm. They did what was required, but stopped coming up with new ideas.

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[59] Ibid., p. 180-181, 188, 234-235.

[60] GRÖTTRUP, Die Besessenen und die Mächtigen, p. 128.

[61] Ibid., p. 178-179; MAGNUS, Raketensklaven, p. 198, 222; ALBRING, Gorodomlija, p. 208-210.

[62] MAGNUS, Raketensklaven, p. 62-64.

[63] Ibid., p. 12-13; BARWICH/ BARWICH, Das rote Atom, p. 154.

[64] MAGNUS, Raketensklaven, p. 166.

[65] ALBRING, Gorodomlija, p. 177-179.

With this canny form of resistance, they wanted to demonstrate that great achievements could no longer be expected from them.[66]

Hence, Gröttrup was joined by most members of the German group when he refused to participate in the development of a new anti-aircraft system. Other specialists who were willing to participate were brought to another laboratory and only returned home several years after the last of the less motivated experts had left the Soviet Union.[67] In factory no. 2, the director N. M. Olekhnovich noted in December 1949 that the key experts were no longer doing any creative work or making new suggestions.[68] A significant number of German specialists in the system of the Ministry of Armaments was disinclined to stay in the Soviet Union and wanted to return to Germany. These experts did not show any initiative and were no longer interested in fulfilling plan targets.[69] During the final phase of his stay, Nikolaus Riehl, who worked on the atomic project, refused to accept new scientific tasks and influenced his colleagues to act in a similar manner.[70]

This behaviour can be interpreted as a form of passive resistance. The Ministry of Internal Affairs (MVD) intervened only if the experts switched to open confrontation. Resistance was only possible in the professional arena. The question arises here whether such resistance would not also have been possible in the Third Reich, and whether this does not undermine the argument that the experts had no alternative to mobilizing their creativity for the Nazis. Even totalitarian dictatorships cannot simply force experts to be creative. It is impossible to know whether a scientist does not want to be creative or whether he simply cannot. The Soviet leadership was not blind to this fact. The best incentives for increasing creativity were not fear and threats, but positive sanctions, high salaries and privileges.

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[66] Murashev (factory no. 1) to Afanas'ev, 5 December 1949; RGAĖ, f. 8044, op. 1, d. 6440, l. 38-55.

[67] Ibid., p. 178-179; MAGNUS, Raketensklaven, p. 198, 222; ALBRING, Gorodomlija, p. 208-210.

[68] Osadchii to Rzhanov (VCSPS), 20 October 1949; GARF, f. 5451, op. 43, d. 768, l. 15-22.

[69] Ustinov to Bulganin, 3 February 1950; RGAĖ, f. 8157, op. 1, d. 1379, l. 25-28.

[70] Report on Nikolaus Riehl, 7 April 1955; Stiftung Archiv Parteien und Massenorganisationen der DDR im Bundesarchiv (SAPMO), NL Ulbricht, NY 4182/978.

4. Conclusion

The Allies differentiated between science and technology on the one hand and the consequences of their use on the other. Like their new employers, the German specialists perceived scientific activity as apolitical. This made the experts useful for the respective political systems and allowed them to pass easily through the denazification procedures. Their research results were transferred to the victorious Allies, and their knowledge and creativity exploited. For these scientists and engineers, the end of the war did not interrupt their professional activities. They continued to work on their old projects, now no longer for the Third Reich, but instead for the former enemies of Germany, which in their turn rewarded them for their services with high salaries, favourable accommodation and food parcels.

Respect for their abilities absolved the specialists from reflecting on their work for the Third Reich, but for some these privileges were bought at a high price – the loss of their personal freedom. Most experts had voluntarily joined the research laboratories in the SOZ, but they did not intend to work in the Soviet Union. They were brought there by force and now had to work for a state which was not willing to integrate them. They could not change their jobs or leave the country. Their main interest lay in effecting a rapid return to Germany. Hence, it is not possible to speak of an 'easy integration of the German specialists in the Soviet Union', either personally or professionally – not because of individual scruples, but because of the unfavourable conditions under which they operated.[71] Soviet research organization differed considerably from what the German experts were used to in Germany, and the adaptation to the new research culture proved to be slow and difficult. Furthermore, the German experts were sequestered away from Soviet research and their knowledge gradually became outdated. This process of dequalification made them less and less valuable for the industrial ministries in whose systems they were working. Their high salaries and the enormous costs of isolating them from Soviet society made them too expensive. The ministries wanted to get rid of them as quickly as possible, but particularly the leading scientists knew too much about recent Soviet scientific developments and were thus obliged to spend between one and five years in the Soviet Union, even after their original research projects had been completed.[72]

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[71] HEINEMANN-GRÜDER, 'Keinerlei Untergang', p. 49.

[72] MICK, Forschen für Stalin, p. 286-288.

PÁL GERMUSKA

IN A STATE OF TECHNOLOGICAL SUBJECTION

SOVIET ADVISERS IN THE HUNGARIAN MILITARY INDUSTRY IN THE 1950S

In March 1953, the Secretariat of the Central Committee of the Hungarian Workers' Party (*Magyar Dolgozók Pártja Központi Vezetőség* – MDP KV) assessed the work of Soviet advisers in Hungary as follows:

> 'The Soviet advisers working in the economic ministries field provided significant help in the utilization of the Soviet Union's abundant experience and in the implementation of modern technology. Soviet advisers are by now working in almost all areas of the people's economy, providing great support with their recommendations for the fulfilment of our plans and the building of socialism. The help of the Soviet advisers contributed in great measure to a deepening love for the Soviet Union, and an appreciation and application of Soviet technology and science by our economic leaders and technological intellectuals. The recommendations of the Soviet advisers extended to the solution of the most important problems facing the people's economy.'[1]

Following World War II, Soviet military, political and economic advisers played a particularly significant role in Central Eastern Europe in the communist takeover of power and the consolidation of the socialist system.[2] One aspect of Sovietization occurring in the late 1940s and the first half of the 50s, which has as yet been awarded little attention, is the forced trans-

[1] Az MDP KV Titkárságának határozata a gazdasági minisztériumok területén dolgozó szovjet tanácsadók munkájának hasznosításáról. 1953. március 18 [MDP KV Secretariat: Resolution on the Utilization of the Work of Soviet Advisers Working in the Economic Ministries Field, 18 March 1953], Magyar Országos Levéltár (Hungarian National Archive, MOL) M-KS 276. f. 54. cs. 235. ő. e., p. 126. Here and henceforth all quoted archival sources have been translated by the author.

[2] Zoltan Barany has compared the roles Soviet advisers played in 1920s Mongolia and in Central Eastern Europe after 1945: ZOLTAN BARANY, Soviet Takeovers. The Role of Advisers in Mongolia in the 1920s and in Poland and Hungary after World War II, in: East European Quarterly 28/4 (1994), p. 409-433.

fer of Soviet technology.[3] The institutionalization of the socialist system and the planned economy was accompanied by the compulsory acceptance of the Soviet technology and production model, which in the countries of the region clearly signified a step back for several branches of industry. On the one hand, this was due to the fact that the Soviet Union in numerous cases (re)exported American and western technology, imported in the early 1930s, to the new socialist countries – albeit incorporating further developments to some extent. On the other hand, from the outset they had no intention of passing on the latest developments and most modern technology to the satellite countries, particularly in the military industry.[4]

Perhaps the most thorough analysis of Soviet technology export/technology transfer has been carried out by Baichung Zhang, Jiuchun Zhang and Fang Yao – with regard to China, which received aid to the value of several billion rubles from the Soviet Union for the building of socialism.[5] The following three areas were examined in their study with respect to Soviet-Chinese cooperation and technology transfer:

- The transfer of industrial technology, including aiding the construction of large industrial projects, technical assistance, complete equipment transfer, transfer of designs and technical data, and developing plant and product design capacities.
- The development of Chinese capacity in science and technology through various forms of cooperation (the establishment of a science and technology cooperation commission etc.).
- A huge educational and training project: reform in technical education, helping China construct technical colleges, recruiting a large number of Chinese students to study in the U.S.S.R. and sending Soviet technical experts to China.

[3] Mention must be made of the Soviet 'technology transfer' in the opposite direction: After World War II, hundreds of scholars, engineers and technicians were forced to work for the Soviet industry, and many of them were deported to the Soviet Union as well. JOHANNES BÄHR, Oberspreewerk 1945–52, in: Zeitschrift für Unternehmensgeschichte 39/3 (1994), p. 145-164; CHRISTOPH MICK, Forschen für Stalin. Deutsche Fachleute in der sowjetischen Rüstungsindustrie 1945–1958, München 2000.

[4] For example, the gunpowder and explosives manufacturing documentation passed on to Czechoslovakia, Poland and Hungary in 1951–53 was based on procedures used in the Soviet Union between 1941 and 45. IRINA V. BYSTROVA, Sovetskii voenno-promyshlennyi kompleks. Problemy stanovleniia i razvitiia, 1930–1980–e gody, Moskva 2006, p. 329.

[5] BAICHUNG ZHANG/ JIUCHUN ZHANG/ FANG YAO, Technology Transfer from the Soviet Union to the People's Republic of China 1949–1966, in: Comparative Technology Transfer and Society 4/2 (2006), p. 105-171.

According to the data of Zhang et al., more than ten thousand Soviet economic, cultural and educational experts spent time in China between 1949 and 1966. Their activities were certainly far reaching:

> 'Soviet visitors ranged from technical consultants and engineers to technical workers. They came from all types of Soviet enterprises, including design and research institutions. After 1953 […] various experts worked on every site targeted for Soviet assistance, installing equipment, conducting workshops and training classes, as well as supporting related technical, design, and scientific research institutions. These people were the manpower that enabled Soviet technology to take root, grow, and bear fruit in China. Many Soviet experts also worked with the Chinese Academy of Sciences, the scientific research institutes of industrial ministries and commissions, and institutes of national defense.'[6]

In her monograph on the Soviet military industry, Irina V. Bystrova has also stressed the importance of the advisers in the consolidation of weapons manufacture in the people's democracies. In the satellite countries, Soviet officers, engineers and technicians directed and aided the reconstruction of old factories, the selection of sites, and the design and construction of new military industry plants. The Soviet experts provided practical help in the launching of weapons manufacture, trained the officers carrying out the military takeover and quality control, and took part in the testing of specimen weapons.[7]

The following study attempts to present the process of Sovietization and the means of technology transfer by examining the activities of Soviet advisers and experts in Hungary in the 1950s. Although the adoption of Soviet technology was extensive in all sectors of heavy industry, my choice has fallen on the military industry, as Sovietization was the most radical and far-reaching in this sector. All of the satellite countries had, after all, discontinued their earlier manufacture of weapons, military vehicles and equipment, with the exception of a few products, and completely switched over to production based on Soviet licences. This study begins with a brief panorama of Central Eastern Europe in order to introduce the general features of the advisory system. It then presents the main stages of the arrival of military and civilian advisers and experts in Hungary, as well as the primary conditions of their operation. The following section goes into details and analyses the activities of the advisers using the examples of specific military industry companies. Finally, the experience of the presence and activities of the advisers in Hungary is summarized.

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[6] Ibid., p. 142.

[7] BYSTROVA, Sovetskii voenno-promyshlennyi kompleks, p. 320-321.

1. The Soviet Advisory System in Central Eastern Europe and Hungary

A precise picture of the consolidation of the Soviet advisory system in Central Eastern Europe can be obtained from a study by Albina F. Noskova, in which the process is divided into three stages based on Russian archival sources. The first advisers appeared together with the advancing Red Army, or following the conclusion of armed conflict at the turn of 1944–45. In the initial period, the advisers stayed for a relatively short period of time in the host countries, their duties comprising consultation in connection with problems in individual areas (border guard, police, interior special forces, economic issues). In Bulgaria, Romania and Hungary, they carried out their duties within the sphere of the Soviet division of the Allied Control Commission.[8]

The second period began in 1949: From the summer of this year onward, consolidation of the *permanent* advisory system accelerated, and the leadership of the army and security forces was 'reinforced' with an increasing number of Soviet officers and generals in the countries of the region. In autumn 1949, a special department was set up in the Soviet Ministry of State Security (MGB) for the purpose of 'offering help to the state security organs of the people's democracies', which coordinated the work of the advisers and systematized the information they provided. Then in 1950–51, advisers appeared in droves in the armies of the satellite nations. 'Their duties not only involved purely professional matters such as building up and administering the army, armaments and military training, but also included controlling the political mood, particularly among the ranks of higher command,' Noskova emphasizes.[9]

In the third period (1951–52), a multilevel advisory structure was established in the economic field. Chief advisers were assigned to work alongside important ministries in the governments of the countries in question. Leading and simple advisers worked in various departments (sections) of the ministries, on major construction projects and in significant factories. They also directed the work of further Soviet experts arriving in connection with scientific-technical aid agreements. The mechanism for sending civilian advisers had not changed since the second half of the 1940s: A country would officially approach Stalin or the Soviet government with a request, and a decision to dispatch a delegation would be made at the highest level.

[8] Albina F. Noskova, Szovjet tanácsadók a kelet-európai országokban. A rendszer megalapozása 1945-1953 [Soviet Advisers in the Countries of Eastern Europe. The Establishment of the System 1945-1953], in: Múltunk 44/3 (1999), p. 203-219, p. 204-208.

[9] Ibid., p. 213-214, quote on p. 214 (author's translation).

Beginning in May 1952, the sphere of duties of the advisers was regulated by a special governmental resolution – the resolution by the Executive Council of the Soviet Union 'on the betterment of the management of Soviet advisers and experts delegated to offices and factories in the people's democracies', as well as associated detailed directives. On the basis of the resolution, the office of economic counsellor was created in the Soviet embassies. This counsellor exercised political supervision over the civilian advisers' duties, although in professional matters they were under the authority of the Soviet institution which sent them.[10]

The resolution referred to above and other directives *in theory* only provided the advisers with a consultative role: They could not make decisions in the place of local leaders, they could not force their opinions on the other party, they could not give unrequested advice, they could not take part in the implementation of specific tasks etc. In reality, the advisers naturally had a deciding voice in numerous matters, as proven by the lines committed to paper in November 1956 by Ernő Gerő, deputy chief secretary of the Hungarian Workers' Party and deputy prime minister of Hungary:

> 'The Stalin Iron Works [of Hungary] were built on the basis of Soviet consultation; even the site was selected on Soviet recommendation. The plans for the iron works and the majority of the fittings were produced in the Soviet Union; the question as to why we were building it was never raised on the Soviet side. […] We built all the military industry plants specifically based on Soviet requests and recommendations. Not one was built on our own initiative.'[11]

Based on Soviet sources, Noskova also clearly states that in the late 1940s and the first half of the 50s, not a single significant social-economic decision was made in the Soviet satellite states without the influence and approval of the Soviet advisers. She also points to an internal reason for calling in the advisers: The local communist party elites suffered from a lack of politically reliable cadres who also possessed the appropriate exper-

[10] Ibid., p. 216-217.

[11] MAGDOLNA BARÁTH, Gerő Ernő értékelése az 1956. októberi eseményekről [Estimation of Ernő Gerő on the Events of October 1956], in: Múltunk 44/1 (1999) p. 138-169, p. 164-165 (author's translation). The first intention was to build the iron works in Mohács close to the Yugoslav border, but following the outbreak of the Soviet-Yugoslav conflict, construction of the investment and the associated socialist town was begun approximately one hundred kilometers further north in Dunapentele (now: Dunaújváros). On the socialist towns in more detail, see PÁL GERMUSKA, Indusztria bűvöletében. Fejlesztéspolitika és a szocialista városok [Under the Spell of Industria. Development Policy and the Socialist Cities], Budapest 2004; PÁL GERMUSKA, Between Theory and Practice. Planning Socialist Cities in Hungary, in: Urban Machinery. Inside Modern European Cities, 1850-2000, ed. by TOM MISA/ MIKAEL HÅRD, Cambridge, MA 2008, p. 233-255.

tise, and they had experience neither in planned economy nor in the organization and execution of large investments. In addition, based on (Soviet) propaganda, they had an exaggerated impression of the capabilities of Soviet experts.[12]

In the case of Hungary, the placement of the advisers can likewise be clearly divided into three phases. In February 1945, when Budapest was just newly occupied, Soviet liaison staff can already be found in the freshly established political investigation division of the police. Later on, the Soviet military command clearly collaborated in setting up the Political Department of the Hungarian State Police. According to the recollections of onetime state security officers, the Soviet Ministry of State Security was permanently represented in Hungary from 1947 onwards.[13]

In negotiations conducted on various matters in Moscow following the signing of the Hungarian-Soviet Treaty of Friendship, Cooperation and Mutual Assistance on 18 February 1948, Deputy Prime Minister Mátyás Rákosi came to an agreement with leaders of the Soviet general staff that they would send eight advisers to Hungary to aid with the development of the army. The first group of eight military advisers then arrived at the Ministry of Defence (*Honvédelmi Minisztérium* – HM) in Budapest on 1 October 1948 under the command of Major General J. M. Prokofiev.[14] On 4 November 1948, the Secretariat of the MDP KV assented to a request by the HM for thirty to forty training officers from the Soviet Union – 'in addition to the present specialists'.[15] Then, on 17 November, the MDP State Security Committee approved the HM proposal to request further Soviet military advisers (twenty-eight field officers and three senior officers).[16] Following these decisions, a total of forty-six further military

[12] NOSKOVA, Szovjet tanácsadók, p. 216-219.

[13] For details, see MAGDOLNA BARÁTH, Soviet Counsellors at the Hungarian State Security Organs, in: NKVD/KGB Activities and its Cooperation with other Secret Services in Central and Eastern Europe 1945-1989. Anthology of the international conference, ed. by ALEXANDRA GRÚŇOVÁ, Bratislava 2008, p. 87-99. At the conference (14-16 November 2007, Bratislava) and in the edited volume, panel II was devoted to the role of Soviet advisers.

[14] IMRE OKVÁTH, Bástya a béke frontján. Magyar haderő és katonapolitika 1945-1956 [Bastion at the Frontlines of Peace. The Hungarian Army and Military Policy 1945-1956], Budapest 1998, p. 150-151.

[15] MOL M-KS 276. f. 54. cs. 16. ő. e., p. 5.

[16] MOL M-KS 276. f. 84. cs. 12. ő. e. It is evident from the proposal that the request was lodged from the outset in agreement with the chief Soviet adviser. The following comment in the recommendation is illuminating: 'It was the opinion of the Chief Soviet Adviser that the demands made in the request are totally sufficient in consideration of present numbers. A larger number of advisers could not be put to appropriate use.' Quote on p. 12.

advisers arrived in 1949, although no intergovernmental agreement was made to provide for their legal status, their sphere of authority or the services due to them.[17] Later on, their numbers further increased: The register of military advisers, established in 1956, listed eighty-two Soviet officers serving on the general staff, with the troops and in the academies of the Hungarian People's Army.[18] The military industry advisers arrived in the second phase, at the same time as the first civilian experts (see details below).

Civilian advisers were called in en masse in the summer of 1951: On 20 June, the Secretariat of the MDP KV made a decision to invite thirty-four Soviet economic, financial, health, educational and cultural experts, who it intended to employ for one year in sixteen ministries and central offices (planning office, statistical office etc.). Besides mining engineers and oil industry experts, geologists and statisticians, invitations for a ballet master, gymnast, schoolmaster and primary school teachers were also included in the request.[19] The Secretariat of the MDP KV considered several of the advisers already working in the country as worthy of receiving honours in the second half of 1951: metallurgy experts for the acceleration of the reconstruction of the Diósgyőr and Ózd foundries,[20] a textile industry engineer for demonstration of Soviet manufacturing standards[21] as well as an expert in cotton growing for domestication of the plant in Hungary.[22]

It appears, however, that whilst the political and military advisers achieved their objectives almost completely, Soviet experts arriving in the third phase faced significantly more difficulties in the economic field. The March 1953 resolution of the MDP KV Secretariat, quoted in the introduction, severely condemned the hosting ministries and companies: 'In more than one place the obscurantism, or even antagonistic attitude of the experts has obstructed, and continues to obstruct the work of the advisers and the utilization of their guidance.'[23]

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[17] OKVÁTH, Bástya a béke frontján, p. 163.

[18] TAMÁS NAGY, Fordulattól – forradalomig. A Magyar Dolgozók Pártja katonapolitikája 1948-1956, Ph.D.-doktori disszertáció [From the Turn to the Revolution. The Military Policy of the Hungarian Workers' Party 1948-1956, Ph.D. thesis], Budapest 2003, p. 69.

[19] MOL M-KS 276. f. 54. cs. 149. ő. e., p. 2-3, 21-23.

[20] MOL M-KS 276. f. 54. cs. 156. ő. e., p. 5, 51-54.

[21] MOL M-KS 276. f. 54. cs. 158. ő. e., p. 7, 75-76.

[22] MOL M-KS 276. f. 54. cs. 171. ő. e., p. 7, 65.

[23] Az MDP KV Titkárságának határozata a gazdasági minisztériumok területén dolgozó szovjet tanácsadók munkájának hasznosításáról. 1953. március 18 [MDP KV Secretariat: Resolution on the Utilization of the Work of Soviet Advisers Working in the Economic Mi-

It also emerges from the document, however, that the Secretariat of International Economic Relations working alongside the Executive Council did in fact request reports from time to time, but no governmental organ was coordinating the work of the advisers. Even the party centre did not monitor the working conditions of the advisers or the utilization of their recommendations. Advisers worked in various ministries without any detailed work scheme, and it also transpired that the implementation of their proposals was not prescribed by edict of the responsible ministry (for instance, the Ministry of Housing and Public Construction [*Építésügyi Minisztérium*]). Due to all this, the MDP KV Secretariat laid down in its resolution that a deputy minister was to be appointed in every ministry to liaise with the advisers, a detailed work scheme was to be contrived everywhere specifying the precise tasks of the advisers and young, politically reliable experts were to be assigned alongside the advisers to ensure acceptance of the Soviet methods.[24]

Between 1953 and 1956, further advisers were only invited in a few special areas, for instance to the Operative Technical Department of the Ministry of the Interior (*Belügyminisztérium*) in August of 1954.[25] The MDP Political Committee also attempted to moderate further requests for advisers, or rather passed them on to the Executive Council.[26] For the most part, the government under Imre Nagy, appointed prime minister in July 1953, merely approved the extension of the mandate for the advisers already in the country and gave permission for a new invitation perhaps on one occasion.[27] For want of appropriate sources, it cannot be known

nistries Field, 18 March 1953], MOL M-KS 276. f. 54. cs. 235. ő. e., p. 126-129, quote on p. 126.

[24] Ibid., p. 127-129.

[25] Az MDP KV Titkársága 1954. augusztus 16-i ülésének jegyzőkönyve [MDP KV Secretariat, minutes of 16 August 1954], MOL M-KS 276. f. 330. ő. e., p. 6 and 80.

[26] Az MDP Politikai Bizottsága 1954. április 7-i ülésének jegyzőkönyve [MDP Political Committee, minutes of 7 April 1954], MOL M-KS 276. f. 53. cs. 169. ő. e., p. 5 and 81-82.

[27] See: Extension of residence period for individual Soviet advisers. 540615/26/1954. Numbered executive council resolution (Minisztertanács számú határozat – Mt. sz. hat.), 15 June 1954, MOL, XIX-A-83-a 53021 microfilm. Extension of residence period for the Soviet adviser working at the State Surveying and Cartographic Office, 540713/25/1954. Mt. sz. hat., 13 June 1954; Extension of residence period for the Soviet adviser working in the Ministry for Collecting Surplus Produce and Livestock, 540713/26/1954, Mt. sz. hat., 13 July 1954, MOL, XIX-A-83-a 53022 microfilm. Extension of contract for N. M. Richkov, Soviet adviser working alongside the Chief Prosecutor's Office and the Ministry of Justice, 541016/3/1954, Mt. sz. hat., 18 October 1954, MOL, XIX-A-83-a, 117. d. as well as: Invitation for committee of Soviet experts in electrical energy, 18 September 1953, 509/nk/2/1953, MOL, XIX-A-83-a 52989 microfilm.

whether Nagy attempted in this way to demonstrate independence or whether entertaining the legion of Soviet experts was simply deemed too expensive. No comprehensive evaluation of the work and aid of the advisers, similar to that of March 1953, was ever carried out again. Following the series of cutbacks to the Hungarian People's Army carried out continuously and in significant measure (numbering tens of thousands) from 1953 onwards, Minister of Defence Colonel General István Bata proposed a reduction in the numbers of military advisers. In a letter written to the Soviet minister of defence Marshall Georgii K. Zhukov on 22 September 1956, he proposed reducing the current number of eighty-two to fifty-four.[28] Due to the outbreak of revolution on 23 October 1956, however, this was realized in a different form: In the final days of October, simultaneously with the withdrawal of the Soviet troops from Budapest, the advisers and their families were also 'rescued'.[29]

Following the second Soviet military intervention on 4 November 1956, Soviet party and state leaders took over control of Hungary for several weeks. Following the consolidation of the Hungarian government led by János Kádár, the new communist party – the Hungarian Socialist Workers' Party (*Magyar Szocialista Munkáspárt* – MSZMP) and the apparatus of repression, Moscow cut back the most visible institutions of Soviet influence and control in the course of 1957. After this, advisers only remained in the state security organs and in the highest levels of the army.[30] It emerges from a draft letter of October 1958 presented to the MSZMP Political Committee that the Presidium of the Communist Party of the Soviet Union recommended to the Hungarian party leadership that the advisory system be discontinued. According to the draft reply, there were around forty advisers in Hungary at that time: eight permanent advisers with the Hungarian People's Army, twenty-three advisers with the Ministry of the Interior and nine uranium industry experts. Of these, the mandates of twenty-four advisers and four experts were due to expire at the end of 1958. The Political Committee decided on 7 October 1958 that the Hungarian side would request a gradual liquidation of the advisory system, but at the same time they deemed it necessary for four advisers to remain at the HM and four at the Ministry of the Interior, as well as five experts with the

[28] NAGY, Fordulattól – forradalomig, p. 88.

[29] On the withdrawal of troops in more detail, see MIKLÓS HORVÁTH, 1956 hadikrónikája [The Military Chronicle of 1956], Budapest 2003, p. 249-251.

[30] JÁNOS M. RAINER, A Szovjetunió [The Soviet Union], in: Evolúció és revolúció. Magyarország és a nemzetközi politika 1956-ban [Evolution and Revolution. Hungary and International Affairs in 1956], ed. by CSABA BÉKÉS, Budapest 2007, p. 31-54, p. 53-54.

uranium industry.[31] As yet, no higher-level governmental or party document from later years has been discovered to shed light on the numbers and composition of the Soviet advisory-liaison staff working in Hungary in small numbers, but for a prolonged period.

Similar reductions and cutbacks to the advisory system were made in the other countries of Central Eastern Europe in the mid and late 1950s. Following the death of Stalin, in a way similar to earlier times, the Soviet leadership issued direct commands for the initiation of reforms and for restricted de-Stalinization. At the same time, Nikita S. Khrushchev increasingly communicated his wishes and expectations to the leaders of the satellite states in the form of 'comradely critique and advice'.[32] With the establishment of the Warsaw Treaty and the reorganization of the Council for Mutual Economic Assistance (COMECON), however, certain coordination forums came into being where, although Moscow had the deciding voice in multilateral negotiations, the partner countries could at least express their opinions.[33]

The principles stressed at the Twentieth Congress of the Communist Party of the Soviet Union in February 1956 also resulted in mitigation of direct Soviet control and greater independence for local communist parties. Furthermore, by the mid 1950s a new vocational intelligentsia faithful to the system had been educated in the socialist countries of Central Eastern Europe, which made sustenance of the advisory system unnecessary. Having gained experience from the consequences of the Hungarian Revolution of October 1956, Moscow gradually withdrew its civilian advisers, and only left delegates in the region in state security and military positions of key importance. The high-ranking military liaison staff, however, remained in the command structure of the allied socialist armies until the 1980s, practically until the withdrawal of the Soviet troops, in order to ensure continuous Soviet control.

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[31] MOL M-KS 288. f. 5. cs. 97-98. ő. e., p. 12 and p. 170-171.

[32] JÁNOS M. RAINER, Magyarország és a Szovjetunió kapcsolatainak történetéhez (1953–1956) [Contribution to the History of Hungarian-Soviet Relations (1953–1956)], in: A magyar-orosz kapcsolatok tizenkét évszázada. Az ELTE Ruszisztikai Központ 2005. május 26-i ünnepi konferenciájának előadásai [The Twelve Centuries of Hungarian–Russian Connections. The Proceedings of the Festive Conference of the Tsentr Rusistiki of the ELTE, 26 May 2005], ed. by GYULA SZVÁK, Budapest 2005, p. 73-80.

[33] For further detail, see CSABA BÉKÉS, Magyarország és a nemzetközi politika az ötvenes évek közepén [Hungary and International Politics in the mid 1950s], in: Evolúció és revolúció, p. 9-27.

2. Soviet Advisers in Hungarian Military Industry Companies

The modest-sized Hungarian military industry consisting of a few state-owned industrial companies, two to three large private firms and numerous small private enterprises suffered serious damage from the events of the war in 1944-45. Between 1945 and 1948, there was almost no war production at all in Hungary. Following the communist takeover of power and nationalizations, a survey of military industry capacities and an assessment of the requirements of the newly forming army was begun in the second half of 1948. At the negotiations in Moscow in February 1948 mentioned above, representatives of the Hungarian government and the Soviet general staff also discussed armament requirements in connection with the development of the Hungarian army. A theoretical agreement was reached on various matters, including the delivery of weapons manufacturing patents to Hungary by the Soviet Union. The Hungarian side could not pass the licences on to any third party, and could not manufacture war supplies surpassing the permitted quantity. For the initiation of equipping and arming the Hungarian army, however, there was a definite need for Soviet imports: The first Soviet-Hungarian weapons supply contract was signed on 2 July 1948, to the value of around 9.5 million USD.[34]

Negotiations on the creation of conditions for development of the Hungarian army were carried out in Moscow between 30 January and 9 February 1949. Based on the discussions, Foreign Minister László Rajk appealed in several letters to Soviet Minister of the Armed Forces Marshall Nikolai A. Bulganin. On the one hand Rajk requested the delivery of licences, technical drawings and manufacturing instructions necessary for the production of war supplies, and on the other the assignment of designers and advisers familiar with manufacture. The Hungarian side requested licence documentation for four kinds of infantry- and thirteen types of artillery ammunition, four kinds of hand weapons, three types of guns, gunpowder and explosives, as well as optical instruments from the Soviet side. Rajk concluded one of his letters in this way:

> '[I]n such case that the government of the Soviet Union is unable to provide planning advisers and production advisers at the rate we have requested, we would ask that at least one adviser familiar with infantry weapons manufacture and one skilled in artillery weapons be made available to us if possible.'[35]

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[34] Okváth, Bástya a béke frontján, p. 150, p. 191-192. Hungary received the weapons and war supplies on a ten-year loan at two per cent annual interest.

[35] Rajk László külügyminiszter levele Bulganyin marsallhoz. 1949. február 12 [Letters from Foreign Minister László Rajk to Marshall Bulganin, 12 February 1949], MOL, XIX-J-1-j Soviet Union TÜK, 8. d.

Deliveries of Soviet weapons commenced in the course of 1949, but the provision of documentation needed for manufacture in Hungary and the arrival of Soviet military industry experts were increasingly delayed. In order to launch the production of Soviet small arms and artillery weapons as soon as possible, the Hungarian army and the Military Technology Institute provided the industry with specimens.

For instance, in January 1949 Diósgyőr ordnance works (DIMÁVAG Engine Works, from autumn 1949 onwards Heavy Machine Tool Works), one of the oldest war production factories in Hungary, obtained single specimens from the HM of the two Soviet gun types to be manufactured. Between February and June, drawings of all the component parts were produced for the 76.2 mm anti-tank gun and the 122 mm field howitzer. Concurrently with this, preparations for manufacture as well as the setting up and tooling of the machinery was begun. Measurements and drawings of the 37 mm anti-aircraft gun, also to be put into production, took from May until September. The Soviet licence documentation for the guns (construction drawings and complete technical descriptions for manufacturing) only arrived in November/December 1949. Due to a lack of translators and the unfamiliar drawing and numbering system, however, the company could only use the approximately fifteen cubic metres of documentation for refining the earlier drawings. The company began manufacturing the anti-tank gun and the howitzer in March of 1950, and then production was stopped when the Soviet adviser arrived in May. The Soviet technical instructions were used from that point on.[36]

During this same year, the Székesfehérvár Sporting Cartridge Factory, founded in 1936, obtained Soviet specimens of artillery fuses (cartouche caps) from the HM to be put into production. Based on the specimens and in line with the Hungarian standards then in force, the factory engineers and technicians produced structural drawings, materials tests and finally the complete technical documentation for manufacture and assembly. The necessary tools and the gauges needed for monitoring (e.g. callipers) were likewise developed by the factory's designing department. The Hungarian documentation based on the specimens was already completed when the

[36] Zoltán Farkas, A magyar hadiipar kialakulásának, tevékenységének történeti feldolgozása a Diósgyőri Gépgyárnál [The Historical Treatment of the Evolvement and the Activities of the Hungarian Defence Industry at the Diósgyőr Engine Works], Kézirat, Hadtörténelmi Levéltár, Magyar Néphadsereg (HL MN) Különgyűjtemény [War History Archives, Special Collection of Hungarian People's Army], Manuscript, Budapest 1984, p. 4-6. The company history of Diósgyőr, as well as those documents quoted below, were written in 1984/85 at the request of the then Ministry of Industry. These studies were written and compiled by the company managers, manuscripts were produced in two to three copies, and until 1996 were classified as top secret.

Soviet advisers arrived and announced that everything had to be produced again in accordance with the *Soviet standards* laid down in the licence documentation. The manufacturing specifications and the acceptance instructions were therefore modified based on the newly arrived Soviet documentation in 1950–51. The Soviet machine tools, finishing tools and other equipment stipulated in the original manufacturing documentation was, however, not available. The components were therefore produced with the existing machinery, with more efficient technology, but assemblage and quality control occurred throughout in accordance with the original stipulations.[37]

The Törökbálint Mechanics Works, established in 1936 for the manufacture and assembly of artillery ammunition and fuses, found itself in a situation similar to the one in the Székesfehérvár plant. They began repairing the war damage in 1949, but the documentation for the Soviet ammunition to be assembled was not available. The necessary drafts were sketched in the Military Technology Institute on the basis of specimen ammunitions. Then the Ministry of Heavy Industry (*Nehézipari Minisztérium*) designated companies to cooperate in supplying the Mechanics Works. The factory began to work out the manufacturing technology and to purchase and prepare the tools and machinery. They had got through sixty to eighty per cent of the preparatory procedures when the original Soviet manufacturing documentation arrived for the eleven types of artillery ammunition. On collating the documents it became clear that numerous modifications were necessary. In 1951, before machine production was begun, the Soviet advisers arrived. These were experienced ammunition industry specialists who provided significant help in elucidating inefficient translations and performing adaptations.[38]

Besides those already mentioned, few data are accessible on the invitation and arrival in Hungary of the military industry advisers. According to a proposal from June 1950, to be found in Mátyás Rákosi's chief secretarial archives, a total of twenty-six Soviet experts was requested in three phases by the Hungarian army command: In the first phase until 20 July 1950, two specialists in guns manufacture, five in artillery ammunition manufacture and three engineer-technicians for infantry weapons manufacture arrived.

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[37] JÁNOSNÉ KÁROLY, A speciális híradástechnika kialakulásának történeti leírása. A hadiipari gyártás alakulása a Videotonnál [Historical Record of the Evolvement of the Special Telecommunication Activities. The Evolution of the Military Production at VIDEOTON], Kézirat, HL MN Különgyűjtemény, Manuscript, Budapest 1985, p. 3-5.

[38] KÁROLY VÖLGYI, Visszaemlékezés. A Mechanikai Művek története [Reminiscences. The History of the Mechanics Works], Kézirat, HL MN Különgyűjtemény, Manuscript, Budapest 1984, p. 3-5.

In the second phase until 1 August 1950, they were augmented by a further engineer-technician for guns manufacture, five for artillery ammunition manufacture, one for explosives manufacture, two for optics and instrument manufacture, as well as one for infantry ammunition manufacture. The third phase until 10 August 1950 witnessed the arrival of two more experts for artillery ammunition manufacture, one for explosives manufacture, two for mine-throwers as well as one extra person for infantry ammunition manufacture.[39] According to indirect sources, contracts signed on 30 November 1950 and 4 June 1951 between the Soviet Union and the government of the Hungarian People's Republic provided for the conditions of the hosting and employment of the Soviet advisers active in the military industry. As the original contracts are missing, only this much can be known: For the period of their stay in Hungary, the HM guaranteed the advisers official premises (an office), suitable flats, trained translators, means of transport (private cars) and health care.[40] This was in any case general practice with respect to accommodating the advisers.

Based on the sources cited, it can be assumed that the advisers arrived between the summer of 1950 and the summer of 1951. According to reports from autumn 1951, a total of thirty-three Soviet military industry advisers were working in the Ministry of Metallurgy and Machine-building Industry (*Kohó- és Gépipari Minisztérium* – KGM) and its companies: five in the Diósgyőr Heavy Machine Tool Works, one in the Budaörs Pressed and Forged Goods Works, in Székesfehérvár, three in the Sporting Cartridge Factory and seven at the Motor Overhaul Company, one at the Salgótarján Iron Foundry and Engine Works, also in Budapest, one at the Hungarian Steelwork Factory, two at the Car and Tractor Parts Works, two at the Seventeenth Vehicle Repair Company, four at the Gamma Works, two at the Mining Detonator Factory, one in the Lamp Works, two at Danuvia, one at the KGM D/1 Department and one in the KGM Telecommunications Department.[41]

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[39] A magyar hadiipar részére szükséges és kérelmezett szovjet tanácsadók ütemterve. 1950. június 22 [Schedule of the Soviet advisers necessary to and requested by the Hungarian military industry, 22 June 1950], MOL, MK-S 276. f. 65. cs. 195. ő. e., p. 14.

[40] Feljegyzés Bíró Ferenc elvtársnak a Magyarországon tartózkodó, hadiiparban tevékenykedő tanácsadó elvtársak helyzetéről. 1952. április 29 [Memo to comrade Ferenc Bíró on the situation of the adviser-comrades living in Hungary and active in the military industry. 29 April 1952], MOL, XIX-F-6-cc 13. d.

[41] KGM felügyelete alá tartozó vállalatoknál tartózkodó szovjet tanácsadó bajtársak névsora. 1951. szeptember 17 [List of the Soviet adviser-comrades working in companies under the supervision of KGM, 17 September 1951], MOL, XIX-F-6-cc 8. d., A KGM D/1 Nehézfémipari Főosztály feljegyzése. 1951. október 9 [KGM D/1 Heavy Metal Industry Department: memo, 9 October 1951], MOL, XIX-F-6-cc 8. d.

Although there exists a comprehensive list with the names of all the advisors, there is no accessible information about their military-social backgrounds or careers. These people were featured in the contemporary reports as well-trained and experienced officers or artificer officers – with the superiority of the *homo Sovieticus*.

Whilst in the old war plants the advisers mainly supervised the conversion to Soviet standards, in the newly founded military industry factories they arrived in time to assist in the planning stage. The General Machinery Design Office (*Általános Géptervező Iroda* – ÁGTI), founded in the spring of 1950 as an independent military industry design institute, produced the plans for eight new factories (one of which was eventually not built) and processed the documentation for the reconstruction of at least six plants before 1953. The plans for all the new factories were produced by adaptation of Soviet documentation. In order to speed up the work, the Soviet side provided ÁGTI with the following documents and designs: construction drawings of the products to be manufactured, the manufacturing technology descriptions of the products, the acceptance instructions (quality and military) for the products, important, relevant GOST standards,[42] in several cases, the technological installation designs for the factory, workshop layout plans, the production machinery and equipment ledger, and a registry of the workforce needed for each profession.

Soviet advisers for the individual types of weapons and in the various industrial branches participated in the selection and designation of the locations for individual factories. In this context, the technology detailed in the licence documentation provided had to be strictly adhered to; it could only be modified with the permission of the advisers.[43]

Despite the standard designs provided, the plants designed with Soviet assistance were not free of difficulties. Construction work on a new infantry ammunition factory known as Mátravidék Metal Works was underway in Sirok beginning in September of 1950; pilot manufacture of normal gun bullets was carried out from the first quarter of 1952 onwards. Following the arrival of the Soviet technologists in the summer and autumn of 1952, however, the plant manufacturing armour-piercing bullets had to be reconstructed, as the advisers ordered the reworking of the whole technology and

[42] GOST is the acronym for *gosudarstvennyi standart*, i. e. state standard.

[43] KÁROLY GROHE, Az Általános Géptervező Iroda története [The History of the General Machinery Design Office], Kézirat, HL MN Különgyűjtemény, Manuscript, Budapest 1985, p. 2-3, 7-10.

rearrangement of the production lines.[44] The position of the advisers active in the military industry was reviewed by the general staff of the People's Army in May 1952. In several factories the advisers had objected to their accommodations and working conditions: In some cases they just considered the flat provided for them to be cramped or crowded (Miskolc-Diósgyőr), and in several firms they could not be provided with a typewriter with a Cyrillic keyboard or there were too few official vehicles available.[45] At the same time, a letter written by Gerő to Rákosi in May 1952 also sheds light on other circumstances. Increasing and expanding demands from the army necessitated the establishment of further war production plants, the construction of which the party leadership could only imagine with Soviet help. In the same letter, Gerő comments in connection with the organization of repairs for jet planes:

> 'We are asking for a lot. Unfortunately, however, the way things are we are unable to make a move in certain areas without the help of the Soviet Union. For example, it is not just that none of our industrial experts have ever manufactured a jet-propelled plane, they have never even seen one in the flesh. In such a case, how can they be required to design the general overhaul and parts manufacturing plant to be built, when they have no idea of this technology? So we are compelled to request help from the Soviet Union for this. Besides this, if here at home they manage more or less to figure out how to construct the plant and what sort of machinery to purchase or manufacture, this will undoubtedly all be worse, more expensive and slower than if we received the designs and the advice we need from the Soviet Union.'[46]

At the beginning of December 1952, eleven military industry plants in north-eastern Hungary were visited under the leadership of Four-star General Mihály Farkas, minister of defence, with K. F. Vasil'chenko, deputy of the chief adviser to the HM, and Leonid P. Murashkin, adviser

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[44] Az észak-magyarországi hadiipari vállalatok rövid jellemzése. 1952. november 28 [Brief characterization of the military industry companies of northern Hungary. 28 November 1952], HL MN 1952/T 50. d. 3. cs.

[45] Feljegyzés Bíró Ferenc elvtársnak a Magyarországon tartózkodó, hadiiparban tevékenykedő tanácsadó elvtársak helyzetéről. 1952. április 29 [Memo to comrade Ferenc Bíró on the situation of the adviser-comrades living in Hungary and active in the military industry. 29 April 1952], MOL, XIX-F-6-cc 13. d.

[46] MOL, MK-S 276. f. 65. cs. 195. ő. e., p. 7. Gerő was clearly exaggerating here. But it is certainly a fact that only turboprop planes were manufactured earlier in Hungary. In cooperation with Nazi Germany, based on a bilateral agreement signed on 6 June 1941, turboprop Messerschmitt (Me) planes of the types 109F and Me 209 were among those manufactured between 1942 and 44 at the Duna Aeroplane Works Ltd. For details, see LÓRÁND DOMBRÁDY, A magyar hadigazdaság a második világháború idején [The Hungarian Military Economy in the Era of World War II], Budapest 2003, p. 327-394. Jet-propelled planes were not manufactured in Hungary, neither during World War II nor afterwards.

to the Ministry of Medium Machine-building (*Középgépipari Minisztérium*)[47] in attendance. According to the report produced on the inspection trip, the plants were definitely running their production based on Soviet licences. '[H]owever, they had not switched over sufficiently or studied and introduced the Soviet technology'. 'This circumstance contributed in great measure [to the fact] that in many factories the percentage of rejects is high and the quality is inadequate,' the minister of defence concluded in signing the report.[48] Of the recommendations formulated in the wake of the visit, the conversion of the incompleted gunpowder works in Sajóbábony was also given serious consideration because the manufacture of the artillery gunpowder was not in accordance with the Soviet stipulations. This gunpowder could also be used for ammunition, but it generated a higher temperature, thus causing greater wear to the gun barrels.

In the field of communications and telecommunications, which was one of the most developed branches of Hungarian industry before 1945, what unfolded was more like a kind of rivalry between the Hungarian development engineers and the Soviet specialists. In December of 1949, the Telecommunications Research Institute (*Távközlési Kutatóintézet* – TÁKI) was founded by the amalgamation of several company research laboratories in order to concentrate military electronics and telecommunications research and development as well as radar locator research. In October 1950, two Soviet engineers studied the Hungarian artillery fire locator (spotting station) development programme and recommended that TÁKI request Soviet specialists for the further development of the matter. Research in connection with an anti-aircraft locator also began in 1951. Independent research was significantly checked, however, when TÁKI was given the task of adapting the documentation for two Soviet locators in 1952: that for the 'Most' anti-aircraft locator (Hungarian code-name: 'Duna') and the 'Luch' artillery locator ('Dráva'). In order to aid conversion of the materials, two Soviet advisers were also sent, and they also supervised the launching of manufacture of the two types of radar in the newly founded Precision Mechanics Company. There had previously been no Hungarian standards

[47] An independent ministry from January 1952 onwards, the Ministry of Medium Machine-building supervised the military industry companies. In July 1953, the military industry was formally integrated into the Ministry of Metallurgy and Machine-building Industry, but remained separate from civilian companies under the name of division 'B' (KGM/B) until 1961.

[48] Jelentés egyes hadiipari üzemek megtekintéséről. 1952. december 9 [Report on visits to various military industry plants. 9 December 1952], MOL, XIX-A-2-ee 93. d. In the end, the manufacture of the so-called solvent artillery gunpowder in accordance with the Soviet standards was not introduced in Sajóbábony. The necessary quantities were supplied from imports instead.

in the manufacture of telecommunications components, so the adaptation of GOST represented a step forward in standardization and also enforced the modernization of the components/parts production industry. This is because the Soviet stipulations necessitated the introduction of new techniques (galvanization, lacquering etc.) and the use of new raw materials (lacquer, non-ferrous and cold-rolled metal sheets etc.) in the manufacture of components.[49]

In almost all of the newly founded military industry plants, production could only be launched with great difficulty and accompanied by a significant quantity of reject products. Besides the serious lack of engineers and skilled workers as well as suitable machinery, the main reason for this was difficulties resulting from the adoption of the GOST standards. It was only at the beginning of 1953, however, that the Ministry of Medium Machine-building set up a central materials testing laboratory, chiefly for the purpose of providing raw materials in line with the Soviet regulations. From this, the Technological Institute of Medium Machine-building (*Középgépipari Technológiai Intézet*) was created in November 1953, whose priority duty was the translation of the Soviet documentation and the adaptation of the GOST standards. (The institute was then merged with ÁGTI in June of 1956.)[50] According to a report of July 1955 by the deputy minister of KGM in charge of the military industry, production of diverse steel alloys in line with GOST was still causing difficulties for metallurgy. There were also fundamental problems with the adaptation of the manufacturing technology instructions, which usually arrived late. The Soviet documentation applied rather to large-scale industry, mass-production or continuous manufacture, whereas in Hungary there was only need and opportunity for manufacture of series at a lesser order of magnitude. The Hungarian HM, on the other hand, ignoring these divergent features, attempted to adhere to an adoption of the Soviet technology without modifications. The deputy minister considered that the industrial companies should work out the technical instructions for the licenced products, paying maximum attention to the Soviet documentation, and these would be finally approved by technical experts of the HM.[51]

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[49] AURÉL KOMPORDAY, A híradástechnikai hadiipari tevékenység fejlődésének története 1980-ig [The History of the Development of the Military Telecommunication Activities until 1980], Kézirat, HL MN Különgyűjtemény, Manuscript, Budapest 1985, p. 18, 121, 125-128.

[50] GROHE, Az Általános Géptervező, p. 17-19.

[51] Feljegyzés Csergő János miniszter elvtárs részére: Az 1949-1955. évi hadiipari gyártásnál elkövetett hibák és hiányosságok, különös tekintettel a HM és az ipar együttműködésére. 1955. július 4 [Memo to Comrade Minister János Csergő: mistakes and deficien-

Due to the extraordinary efforts and continuous Soviet control, Hungarian military industry production increased by a factor of sixteen between 1950 and 1953. However, the governmental programme under Nagy attempted to create resources to raise the standard of living for the population by curtailing the heavy industry developments and the military expenditures. The drastic reduction of orders from the army necessitated a switchover of the military industry to civil production: While the proportion of civilian products amounted to fifteen per cent in 1953, it had grown to sixty-five per cent within military industry production by 1955. We have no knowledge as to whether the Soviet advisers played any kind of role in the implementation of the conversion programme; the majority of them were probably recalled.

In the spring of 1955, however, the situation changed once again: Not only did Rákosi take back power from Nagy, but with the establishment of the Warsaw Treaty, Moscow urged the modernization of the armies in the member countries with increasing emphasis. For the launching of the large-scale rearmament programme, the manufacture of around seventy-five new types of weapons and war supplies (Goriunov machine-guns, 152 mm howitzers, copper cartridge-cases, anti-aircraft ammunition etc.) had to be organized in the Hungarian military industry factories, based on licences, with new technologies. Due to the continuing cut-backs to the Hungarian army and the uncertainties surrounding the products to be manufactured, however, it only became more or less clear what the industry needed to prepare for by the summer of 1956. Final production and development plans, however, were not contrived even then.[52]

At the same time, the Soviet technical advisory system was significantly altered. A modification of the Soviet attitude can be discerned in the minutes of a discussion in May 1956 between Soviet and Hungarian electronics industry experts. The parties agreed on a *mutual* exchange of scientific and technical literature and industrial branch standards, a *mutual* notification of new research and development results as well as a *mutual* interchange of patents and inventions. Furthermore, in the case of military licence products planned to be manufactured in Hungary, the Soviet side consented to Hungarian experts studying their manufacture in the Soviet Union and

cies in military industry manufacturing in the years 1949–1955, with particular regard to cooperation between the HM and the industry, 4 July 1955], MOL, XIX-F-6-a 118. d.

[52] For details, see PÁL GERMUSKA, The First Conversion Project of the Cold War. The Hungarian Defence Industry in 1953–1955, in: Exiting War. Post Conflict Military Operations. 6th International Conference of the Military History Working Group, Bratislava 3-7 April 2006, ed. by MILOSLAV ČAPLOVIČ/ MÁRIA STANOVÁ/ ANDRÉ RAKOTO, Bratislava 2007, p. 281-289.

coordinating the order in which the necessary documentation should be compiled and sent.[53] Probably as a consequence of these negotiations, in a letter from August 1956 addressed to the Soviet government Prime Minister András Hegedüs no longer requested advisers for the manufacture of new military industry products, but requested approval for a trip abroad by eighty-two Hungarian industrial and military experts. On study trips of three weeks to one month, the experts would have liked to study the production process and technology in the Soviet Union for the appliances and weapons not yet manufactured in Hungary.[54]

The October Revolution naturally balked the concrete travel and production plans, but military industry relations were now clearly based on mutual cooperation and bilateral communication. Thus, for instance, in the case of the S-60 57 mm anti-aircraft gun, several consultations and exchanges of experience preceded the launching of manufacture. The Diósgyőr Heavy Machine Tool Works received the complete manufacturing documentation in September 1957, and experts from the works were able to familiarize themselves with the production of the special steels and machining of the skelp as well as the process of the military product-acceptance on a four-week study trip to the Soviet Union.[55] Subsequently, industry-branch and direct inter-company relations became decisive; the Soviet experts always offered advice in Hungary in connection with putting specific individual products into production. A new framework for discussions was established starting in October 1956 by the Standing Committee on Defence Industry Cooperation of COMECON, which operated as a forum for multilateral coordination and cooperation.[56] The relations also became increasingly regulated in legal terms. For instance, a special protocol provided for the classroom training facilities of the 'Neva-M' anti-aircraft rocket complex to be put into operation in Hungary in April of 1978. The agreement included the means, timing and schedule for the provision of Soviet technical aid,

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[53] Jegyzőkönyv a szovjet és magyar szakértőknek a gyengeáramú ipar területén a kölcsönös műszaki segítségnyújtásról és a munkák koordinálásáról megtartott értekezletéről. 1956. május 4 [Minutes of the meeting on the coordination of the mutual technical assistance and work of the Soviet and Hungarian experts in the electronics industry field, 4 May 1956], MOL, XIX-F-6-a 118. d.

[54] MOL, XIX-A-2-p 3. d.

[55] FARKAS, A magyar hadiipar kialakulásának, p. 12-14.

[56] On the Standing Committee on Defence Industry Cooperation, see PÁL GERMUSKA, From Commands to Coordination. Defense Industry Cooperation within the Member-States of the Warsaw Pact, 1956–1965, in: Multinational Operations, Alliances, and International Military Cooperation. Past and Future. Proceedings of the Fifth Workshop of the Partnership for Peace Consortium's Military History Working Group, Vienna, Austria 4-8 April 2005, ed. by ROBERT S. RUSH/ WILLIAM W. EPLEY, Washington, D.C. 2006, p. 101-108.

the delivery of the necessary tuition documentation for the Hungarian experts to be trained, the means of bearing costs etc.[57]

3. Conclusion

The objectives of the gigantic colonization manoeuvre mobilizing hundreds of Soviet advisers and experts changed significantly between 1944 and 1956. At the beginning, the primary goal was the stabilization of the Soviet occupation and the pacification of the occupied countries. At this time, the task of the advisers was temporary, and concentrated on partial territories. By 1947, it had become clear that the Soviet presence in Central Eastern Europe would be permanent, and that the occupied countries would have to adopt the Soviet model of socialism. The advisers therefore made every effort to help the local Communist forces to a position of autocracy. Following the takeover of power, the advisers appeared in the state security apparatus and the army in ever increasing numbers in order to begin the reorganization of the organs of coercion modelled on the Soviet pattern.

From 1949 onwards, the goal of the advisory system was to reproduce the Soviet social and economic model as closely as possible. The advisers came with a threefold mission:

- to faithfully interpret the Soviet pattern;
- to influence middle- and upper-level decision making in such a way that Soviet interests predominate whatever happens, and to ensure that the pattern be followed;
- to constantly supervise the adoption of the Soviet model.

In essence, these intentions corresponded to the expectations and conceptions of the local Communist leaders, who put more trust in the advisers than in their own apparatus and intelligentsia.

Then, as Sovietization advanced from year to year, and new cadres were thoroughly educated, there was less and less need for such a direct means of control. In addition, Moscow's attitude was also modified between 1953 and 1956: Within certain limits, the Soviet leadership tolerated the individual routes taken by some of the socialist countries. The majority of civilian advisers thus became essentially superfluous, and they returned home on

[57] Jegyzőkönyv a Szovjetunió Kormánya és a Magyar Népköztársaság Kormánya között speciális objektum létrehozásában a Magyar Népköztársaságnak nyújtandó műszaki segítségnyújtásról. 1978. április 21 [Minutes between the government of the Soviet Union and the government of the Hungarian People's Republic on the technical assistance to be provided to the Hungarian People's Republic for the establishment of a special institution, 21 April 1978], MOL, XIX-G-3-c 54. d.

expiry of their mandates. Military cooperation was, eventually, placed on a new basis with the establishment of the Warsaw Treaty, but in the cases of the army and state security, Moscow did not wish to relinquish the possibility for direct intervention. Following 1956, the greatest change that occurred in this area was that the senior Soviet officers assigned to the HM and the general staff were known as liaison officers rather than advisers.

The reorganization of the military industries in the Central Eastern European countries and their development at an accelerated rate unfolded from 1948 to 1949 under the direction of the Soviet military and later the industrial advisers. The development set two main targets: 1. autarky: Individual countries should be self-supporting in as many weapons and implements of war as possible; 2. standardization: All the armies in the block should be equipped with identical armaments based on Soviet standards and licences. For reasons of secrecy and protection of information, however, and in order to disparage the satellite armies and to keep them in a subordinate position, the Soviet Union passed on second-rate technology for the most part. The chief task of the military industry advisers was the direction and control of the switchover to Soviet standards; no deviation from the original licence stipulations was allowed, regardless of their technological levels. The switchover in connection with raw materials production, components manufacture, tooling and monitoring involved serious conflicts, extra work and tremendous excess costs. The application and observance of the GOST standards, generally stricter than the earlier ones, was mastered by the industry at the cost of huge efforts made over a period of years. (It is however true that, once it had become routine, the greater technological discipline also represented an advantage in civilian production.)

The mission and sphere of duties of the advisers was basically influenced by Soviet military doctrine and a rethinking of the function of the military industry in 1954-55. It emerged from an examination of the investments implemented to date in the war industries of the region that the developments realized had been of uneven standard, and that superfluous concurrent capacities had been constructed. A report of September 1954 by the Soviet State Planning Committee (GOSPLAN) pointed out among other things that as a result of the uncoordinated provision of licences, for the most part out of date armaments of mixed composition were being manufactured in the military industry plants of the satellite countries.[58] But with

[58] BYSTROVA, Sovetskii voenno-promyshlennyi kompleks, p. 328-329. For the eighty-five millimetre anti-aircraft gun, for example, Hungary and Poland manufactured the 1939 model, and Czechoslovakia the 1944 model, with Czechoslovakia introducing the manufacture of the new version of the gun.

an industrial background of this sort, it was impossible to begin modernizing the Warsaw Treaty armies. It became clear that the structure enforced on the allies with the help of the advisory system was not efficient. Instead, division of labour, mutual cooperation and multilateral coordination was necessary, and the Standing Committee on Defence Industry Cooperation of COMECON was created to provide a framework for this. Within this milieu, the permanent industrial professional advisory system also became meaningless. Conferences of several days and direct, on-the-spot mutual professional consultation lasting a few weeks became general practice after 1956. All this signified a covert admission from the Soviet side: that the provision of technology did not work using the 'copy-paste' method, but that adaptation was an unavoidable part of the process.

From the Hungarian point of view, not many positive returns can be mentioned in connection with the advisory system. The Soviets imposed on Hungary an overstretched development of the army and the military industry by peremptory order and for political reasons, along with a foreign technological culture and standards system. The Soviet advisers working in the country were key figures in the transfer of technology, carrying out complex political and professional tasks. From planning to construction and to the launching of manufacture, they supervised the utilization of the documentation and technology provided as well as adherence to the licence stipulations and standards. For the most part, it was not due to the 'incompetence' of the Hungarian engineers and technicians that they were unable to meet the advisers' expectations – it was much more the unfavourable circumstances (lack of machinery and materials, untrained workforce etc.), political mistrust and the change of technology which caused the production setbacks. The introduction of the GOST standards upset the entire metallurgy industry for years. In the ammunition industry as well as weapons and machinery manufacture, loads of tools, machinery and gauges had to be exchanged or modified. It was only in telecommunications and component manufacture that there was a positive effect, as there had been no Hungarian standards in force. The costs involved in the change of standards in the 1950s were only partially cleared in the 1970s and 80s when division of labour was introduced within the framework of COMECON: For instance, the above-mentioned Sporting Cartridge Factory (now under the name of VIDEOTON) provided numerous Warsaw Treaty member countries with military radios.

In sum, the Soviet advisory system of the 1950s in essence aimed at the total control of the subordinated nations and economies; technology transfer was only a secondary target. At first glance, the system worked acceptably well, at second it was a dictatorial act which later initiated a process of mutual alignment and adaptation.

SARI AUTIO-SARASMO

COOPERATION ACROSS THE IRON CURTAIN

SOVIET TRANSFER OF TECHNOLOGY FROM WEST GERMANY IN THE 1960S

In the post-World War II structure of world politics, it was imperative for the Soviet Union to demonstrate its supremacy and to maintain and reassert its position as superpower and leader of the Eastern bloc. The will to prove the 'historically determined' victory of communism over capitalism[1] shaped – among other things – the aims of the Soviet Union's economic strategy during the Cold War, which was based on technological developments that had rapidly progressed during World War II and the immediate postwar years. In the 1950s, the Soviet leadership realized that technological progress had become a more important source of growth in the United States and Western Europe than increases in labour and capital inputs, which until then had formed the basis of the Soviet Union's growth strategy.[2] Under the leadership of Nikita S. Khrushchev (1956–64), policy makers recognized the importance of technological progress for economic growth – an aspect that was henceforth reflected in Soviet plans for economic modernization. The Soviet leadership moreover realized the importance of automation and accepted the need for advanced foreign technology and knowhow as the basis for automatizing Soviet industry.[3] This was a clear continuation

[1] This becomes especially clear in Khrushchev's rhetoric. JOHN LEWIS GADDIS, Cold War, London 2005, p. 84; WILLIAM TAUBMAN, Khrushchev. The Man and his Era, London 2003, p. 427, 511.

[2] JOSEPH BERLINER, Soviet industry from Stalin to Gorbachev, Surrey 1988, p. 249; GEORGE HOLLIDAY, Technology transfer to the USSR 1928-1937 and 1966-1975. The role of Western technology in Soviet economic development, Boulder 1979, p. 59; ERIK P. HOFFMAN/ ROBBIN F. LAIRD, 'The scientific-technological revolution' and Soviet foreign policy, London 1982, p. 93.

[3] Ibid, p. 7-8; SARI AUTIO-SARASMO, Soviet Economic Modernisation and Transferring Technologies from the West, in: Modernisation in Russia since 1900, ed. by MARKKU KANGASPURO/ JEREMY SMITH, Helsinki 2006, p. 104-123, p. 110-111.

of the policies of former Russian leaders, who had turned backwardness into an advantage: Borrowing advanced technology facilitated quick progress.[4]

For the Soviet Union, the problem occurred when conventional nonautomated metal-working machinery was the only relatively developed branch of postwar civil industry – not taking the Soviet military complex into consideration, which is not addressed in this study. Mostly due to Khrushchev's efforts, in the 1950s and 60s the Soviet Union focused on Western Europe and especially West Germany for the transfer of technology that was needed in the Soviet Union.[5] Technology transfer, which is usually divided into two subsections (commercial and noncommercial transfer), has always been a normal part of commercial life and an important source of economic growth throughout the world.[6] For the Soviet Union, the acquisition of technology and knowhow was the most important aspect of transfer, and the line dividing commercial and noncommercial transfer was thin. Foreign technology, mainly innovations from one country, were subsequently put to use in the Soviet Union either directly or as a template for designing domestic production means.[7] Thus, during the Cold War the Soviet Union relied on already existing technology and knowhow in order to accumulate experience and to learn through the active exploitation and imitation of foreign expert knowledge. The main methods involved in this were learning by doing and reverse engineering, i.e. the deduction of the techniques of manufacture from a close examination of the product.[8]

The task of technology transfer from the West was, however, more demanding now than in the interwar years. Before World War II, techno-

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[4] SHEILA FITZPATRICK, The Russian Revolution, Oxford 1994, p. 19; PAUL R. GREGORY/ ROBERT C. STUART, Soviet and Post-Soviet Economic Structure and Performance, 5th edition, New York 1994, p. 8; Technology and East-West Trade Report. Office of Technology Assessment, US Congress, November 1979, p. 214-215, 217.

[5] Russian State Archive of the Economy [Rossiiskii Gosudarstvennyi Arkhiv Ėkonomiki (RGAĖ)], f. 9480, op. 7, d. 805, l. 9.

[6] PHILIP HANSON, The Rise and Fall of the Soviet Economy. An Economic History of the USSR 1945–1991, London 2003, p. 123; Technology and East-West trade Report, p. 100.

[7] PHILIP HANSON, Trade and Technology in Soviet-Western Relations, London 1981, p. 13-14; ERKKI NIRONEN, Transfer of Technology between Finland and the Soviet Union, in: Finnish-Soviet Economic Relations, ed. by KARI MÖTTÖLÄ/ O. N. BYKOV/ I. S. KOROLEV, London 1983, p. 161.

[8] MARJATTA HIETALA, Innovaatioiden ja kansainvälistymisen vuosikymmenet. Tietoa, taitoa, asiantuntemusta. Helsinki eurooppalaisessa kehityksessä 1875–1917 [Decades of Innovations and Internationalization. Helsinki in the European Progress 1875–1917], Helsinki 1992, p. 265; Technology and East-West trade Report, p. 100.

logy was transferred through normal trade and mainly in the form of machinery based on innovations that were already widely known. After World War II, the structure of technology transfer and trade changed. With the dawn of the Cold War, technological innovations became tied to military technology and the arms race, which made technology, and especially the transfer of technology, a matter of world politics. Based on Russian archival materials and from the Soviet point of view, this article investigates Soviet technology and knowhow transfer from West Germany in the late 1950s and early 60s in the context of the Cold War. How was transfer from West Germany organized? What kinds of technology and knowhow were transferred? How and why did the Soviet Union acquire specifically these things?

1. Transferring Technologies: The Modernization of the Soviet Economy

Transferring foreign technology thus became one of the main strategies to promote technological progress and economic modernization in the Soviet Union. Soviet 'modernization' emphasized the role of technology and economic growth in the process.[9] Already Lenin realized the need for foreign technology and expertise in the development of Soviet Russia. For Stalin, industrialization was tantamount to modernization. The slogan for the First Five-Year Plan (1928–32), 'Technology decides everything!', set the aim of the industrialization programme.

The main instrument in Stalin's economic growth programme was centralized economic planning, which enabled very high rates of investment to be generated in certain areas. Heavy industry was prioritized with a view to producing machinery for all the remaining branches of the economy. The use of technology, such as tractors and advanced tools, was strongly propagated.[10] Stalin imported foreign technology to the Soviet Union, mainly in the form of machinery from Germany, in order to create a foundation for domestic heavy industry. By importing machinery and prioritizing heavy industry, Stalin managed to industrialize the Soviet Union and to create an immense military-industrial complex before the outbreak of World War

[9] HOLLIDAY, Technology transfer, p. 12-13.

[10] VLADIMIR ANDRLE, Workers in Stalin's Russia. Industrialization and Social Change in a Planned Economy, New York 1988, p. 13, 32; SARI AUTIO, Suunnitelmatalous Neuvosto-Karjalassa 1928-1941. Paikallistason rooli Neuvostoliiton teollistamisessa [Planned Economy in the Karelian ASSR 1928-1941. The Role of the Local Level in the Industrialization of the Soviet Union], Helsinki 2002, p. 105.

II.[11] The paradox lay in the fact that the Soviet Union was able to produce the high technology that was needed in the space programme and in arms control, but was unable to translate these scientific breakthroughs into economically competitive innovations.[12]

The main problem in the Soviet Union was thus not lack of high technology. Rather, there was a lack of the medium-level technology needed for the automatization of basic industry. When the Soviet leadership adopted the idea of modernization based on technological progress and industrial automatization, the need emerged for technologies and knowhow which did not exist in the Soviet Union.[13] Engineering and the mathematical sciences were at a high level and the Soviet research and development system (R&D) was well established and supported.[14] The problem was that the sorts of connections between the civil and military sectors that existed in the West were never established in the Soviet Union, and that the divide separating these two sectors served to isolate the prioritized and developed military-industrial complex from wider Soviet R&D.[15] Resources (funding and intellectual capacity) were allocated mainly to the military-industrial complex.

Not only the problematic prioritization of the economy, but also the restrictions of the Cold War caused the problems inherent in Soviet technology and knowhow acquisition from the West. The United States wanted to prevent the flow of high technology to the Soviet Union and the socialist bloc. The U.S.A. and other Western countries thus raised a high technology embargo against the socialist states, hampering the Soviet leadership's plans to transfer Western technology to the Soviet Union. The Western strategic embargo CoCom, in which the United States took a leading role, was established in 1949.[16] This multilateral export and control mechanism was implemented by NATO members as a response to the Soviet atomic bomb, with the main aim of retarding Soviet technical progress in key

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[11] GREGORY/ STUART, Soviet and Post-Soviet Economic Structure, p. 15, 30; see also HANSON, The Rise and Fall, p. 62; on the connection between science and industry during the Stalin era, ROBERT LEWIS, Science and Industrialisation in the USSR, London 1979.

[12] BERLINER, Soviet industry, p. 218; ILMARI SUSILUOTO, Suuruuden laskuoppi. Venäläisen tietoyhteiskunnan synty ja kehitys [History of the Russian Information Society], Helsinki 2006.

[13] RGAĖ, f. 9480, op. 7, d. 805, l. 39-40.

[14] AUTIO-SARASMO, Soviet Economic Modernisation, p. 112.

[15] SUSILUOTO, Suuruuden laskuoppi, p. 172-173. Even the computer systems that were created inside the military complex were incompatible with one another.

[16] More detailed: J[OZEF] WILCZYNSKI, Technology in COMECON, London 1974, p. 331.

strategic areas. The embargo was directed against exports of technology that might contribute to military and civilian economic performance, and it was aimed not only at the Soviet Union but at the entire socialist bloc.[17] In addition, tariffs were set high, trade and technology transfer facilities and mechanisms were restricted, and credits were discouraged.[18]

Because no CoCom decision was legally binding for a member nation, all of its decisions had to be unanimous. In spite of its leading role in the embargo, the United States only had a limited ability to persuade its allies to strengthen CoCom.[19] The U.S. embargo policy against the Soviet bloc did not meet with unanimous support in Western Europe. In the early 1950s, Great Britain and France were reluctant to support the embargo of products that could become the subject of commercial trade with the Soviet bloc.[20] Moreover, in the Soviet Union there was great demand for technology that Western Europe could supply. Although the embargo did not manage to prevent trade between the socialist countries and Western Europe, technology transfer from the West was not an easy task for the Soviet leadership. The need for 'capitalist' technology clashed with the idea of the superiority of the socialist system[21] and thus created an ideological problem.

One of the methods used to address the problems involved in transferring Western technology to the Soviet Union was the adoption of the concept of the Scientific-Technical Revolution (STR).[22] The concept STR was popularized in the West in the late 1950s to explain the rapid technological progress unfolding at the time and the changes that followed in its wake. The STR also included the close integration of science, theory, technology

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[17] HANSON, Trade and Technology, p. 223; GARY BERTSCH, Technology Transfers and Technology Controls. A Synthesis of the Western-Soviet Relationship, in: Technical Progress and Soviet Economic Development, ed. by ROBERT AMANN/ JULIAN COOPER, Oxford 1986, p. 115-134, p. 127-128; HANSON, The Rise and Fall of the Soviet Economy, p. 161. As Hanson points out, the Volga automobile plant was reviewed with the aim of ascertaining whether the Italian-made machine tools could be diverted to tank production.

[18] BERTSCH, Technology Transfers, p. 127-128; ERKKI NIRONEN, Neuvostoliitto läntisen teknologian tuojana. Tutkimusraportti 39. Lappeenrannan teknillinen korkeakoulu [The Soviet Union as Importer of Western Technology, Research Report. University of Technology], Lappeenranta 1991, p. 50-53. For a different approach to CoCom: IAN JACKSON, The Economic Cold War. America, Britain, and East-West Trade, 1948–1963, New York 2001.

[19] Technology and East-West trade Report, p. 155-156, 160, 14; ERKKI NIRONEN, Lännen embargopolitiikka murrosvaiheessa [Western Embargo Policy in Transition], in: Ulkopolitiikka [Foreign Policy] 3 (1990), p. 44-49, p. 44.

[20] JACKSON, The Economic Cold War, p. 173, 178.

[21] GADDIS, Cold War, p. 84.

[22] Ibid., p. 87.

and production, and its main elements were various new technological processes. The economic content of the STR included improvements in the factors of production and products, enabling a rapid expansion of production as well as substantial increases in social welfare.[23] The idea of the STR suited the Soviet leadership's aims and served as a useful propaganda concept – both inside and outside the socialist bloc.

One result of the Western embargo was the strengthening of scientific-technical cooperation inside the Soviet bloc. The Council for Mutual Economic Assistance (COMECON) was established in 1949. Economic performance within COMECON was based on a division of labour which, along with the aims of scientific-technical cooperation, was based on priorities set by the Soviet Union. These priorities were standardization, which was connected to the international division of labour, and the transfer of scientific-technical discoveries and designs from one country to another. This mainly involved cooperation and division of labour in R&D within the COMECON area. One country took care of one process and then sent the results on to the Soviet Union, where all strands converged.[24] This was officially intended to serve the common good, but ultimately the main benefit was accumulated in the Soviet Union. That is why the realization of the STR was strongly propagated within COMECON as the Soviet Union's main aim. However, scientific-technical cooperation within the socialist bloc did not solve the problem of the lack of technology. In spite of serious efforts, by the early 1960s the realization dawned in the Soviet Union that advanced Western processes, designs, knowhow, machinery and equipment were still needed throughout the COMECON area. Technology obtainable inside the bloc was no longer sufficient to keep abreast of the STR.[25] This made Soviet networking and cooperation with the West more target-oriented: New opportunities for cooperation were actively sought, and existing ties were strengthened.

[23] WILCZYNSKI, Technology, p. 6-7. Wilczynski attributes the concept to Bertrand Russell.

[24] Ibid., p. 141, 172; Russian State Archive of Contemporary History [Rossiiskii Gosudarstvennyi Arkhiv Noveishei Istorii (RGANI)], f. 5, op. 40, d. 98, l. 98-178; Russian State Archive on Scientific-technical Documentation, Samara Branch [Rossiiskii Gosudarstvennyi Arkhiv Nauchno-Tekhnicheskoi Dokumentatsii, filial v g. Samare (RGANTD)], f. r-20, op. 4-6, d. 227, l. 34; RGANTD, f. r-20, op. 4-6, d. 312, l. 97.

[25] WILCZYNSKI, Technology, p. 14, 145, 185, 275, 296.

2. Technology Transfer is organized

Khrushchev's methods for overcoming backwardness were technologically oriented and his willingness to adopt new scientific innovations determined the orientation of Soviet economic modernization and decision making the in the late 1950s and early 60s.[26] In 1955, the State Committee for the Introduction of New Technology into the National Economy (Gostekhnika) was established as part of the preparation of the Sixth Five-Year Plan.[27]

In the late 1950s, several projects were launched with the aim of diffusing new technology in the Soviet Union. According to a 1957 resolution of the U.S.S.R. Council of Ministers, some two-thousand examples of imported machines, instruments and new materials had been provided for thorough investigation and utilization in the years between 1955 and 1957.[28] In its own inspection conducted early in 1957, Gostekhnika assessed the realization of the plan drawn up by Soviet ministries and authorities, examining how the new technology had been diffused in R&D institutes and enterprises. The inspection's findings were rather disturbing. Although there had been serious attempts to investigate and diffuse new technologies, no breakthroughs had eventuated. Gostekhnika recommended that more new technologies be obtained for testing and production, that a wider acquisition of technology be pursued.[29]

The division of machine building under the Central Committee (CC) of the Communist Party of the Soviet Union (CPSU) was one of the main party organs involved in the planning of industrial development. According to this division's reviews, plans issued by the CC CPSU for the implementation of new technology in the years between 1957 and 1960 were inadequate in many respects. Coordination between the ministries and authorities was insufficient, which resulted in a lack of interest in implementing new technology in enterprises and R&D institutes.[30] As early as the late 1950s, it became clear that there was a need for a system that would coordinate the

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[26] TAUBMAN, Khrushchev, p. 620. On Khrushchev's attraction to scientists and engineers, see ibid. p. 130.

[27] The system was reorganized several times with different names but the purpose remained the same. ALEC NOVE, An Economic History of the USSR, 1917-1991, London 1992, p. 350; LOREN GRAHAM, Science in Russia and the Soviet Union. A short history, Cambridge 1993, p. 181.

[28] The materials do not reveal whether the process of reverse engineering was involved or not.

[29] RGANI, f. 5, op. 40. d. 67, l. 4-9. It was also mentioned that the acquisition should be directed towards the United States.

[30] RGANI, f. 5, op. 40, d. 52, l. 1-6.

implementation of new technology in the Soviet Union and organize the acquisition of technology and knowhow from abroad.

The plan to create the State Scientific-technological Committee[31] (GKNT) under the U.S.S.R. Council of Ministers was reviewed by the highest party organs at the beginning of 1957.[32] It would introduce a thorough system for investigating the latest findings in the field of technology in the Soviet Union, throughout the Soviet bloc as well as abroad. The GKNT's task would also comprise the acquisition of innovations and the diffusion of these technologies among Soviet R&D institutions. According to the plan, the GKNT was to coordinate all technology and knowhow transfer to the Soviet Union, to facilitate new technology acquisition and to draft implementation strategies for the future. Inside the Soviet Union, the task of the GKNT was clear: to mediate information, propagate new practices and diffuse new technologies.[33] The creation of this new administrative organ was approved by the CC CPSU in 1958 and operational work started immediately.[34] Operations that took place in the late 1950s and early 60s proved that the GKNT was actively fulfilling its tasks as delineated in the plan.

Technology and knowledge transfer from abroad was one of the main objectives in the work of the GKNT. This was achieved mainly through foreign missions (*komandirovki*) carried out by Soviet specialists. The GKNT was in charge of preparing missions and taking care of arrangements in the target countries. Technology advisers in the Soviet embassies and trade commissions collected information on the technology and knowhow in their station countries for the use of the GKNT. The participation of Soviet specialists at international conferences and exhibitions, and their membership in international scientific associations formed an important source of background information for the work of the GKNT. The information collected through these various sources was disseminated inside the Soviet Union via the All-Union Institute for Scientific-Technical Information (VINITI),[35] which was under the jurisdiction of the GKNT and

[31] The Gosudarstvennyi Nauchno-Tekhnicheskii Komitet (GNTK) was the first version of the State Committee for Science and Technology [Gosudarstvennyi Komitet Nauki i Tekhnologii (GKNT)]. In order not to complicate matters, the institution is abbreviated as GKNT throughout; Cf. GRAHAM, p. 181.

[32] RGANI, f. 5, op. 40, d. 52, l. 13-19.

[33] RGANI, f. 5, op. 40, d. 52, l. 13-19.

[34] RGANI, f. 5, op. 40, d. 121, l. 29-30.

[35] VINITI [Vsesoiuznyi Institut Nauchnoi i Tekhnicheskoi Informatsii] was established in 1952; it collected and produced summaries of 22,000 scientific journals and publication series, and about 8,000 books from 130 countries in 70 different languages. JOUKO SEPPÄNEN, Tieteellis-tekninen informaatio Neuvostoliitossa. Suomen ja Neuvostoliiton tieteellis-

the Academy of Sciences.[36] This system of collecting information was very effective and thorough.

The system soon received the chance to prove its efficacy. Soviet embassies drew up a multitude of reports about the economic and technological development of the target countries.[37] During their foreign missions, Soviet specialists, who came mainly from ministries and state enterprises, would begin by collecting information from those branches of the economy that were most useful for the Soviet Union. In the initial stages, the information collected during the missions was of a very practical nature. After having visited the selected production units, Soviet specialists wrote up practical suggestions for action based on what they had experienced and observed in the course of their visits. It was essential that such visits involved a clear benefit for the Soviet side: When no such benefit was discernible, no specialists were sent.[38] In the early 1960s, when COMECON proved unable to produce compatible new technology, these missions became more target-oriented and more focused on technological observations. Soviet specialists travelling abroad produced reports with hundreds of pages describing the pertaining technology, illustrated with dozens of photos and constructional drawings, which were then distributed through the GKNT for the benefit of Soviet industrial designers.[39]

However, the influence of the collected information proved to be rather negligible for Soviet R&D. The main reason for this seemed to be the planning system, which on the one hand created a relatively flexible environment in terms of resource allocation and mission-oriented projects. On the other hand, the advantage of flexibility turned into a disadvantage when plan fulfilment became the main aim of the economic strategy. Any new technology based on domestic design or reverse engineering required considerable new resources and new suppliers, which was a considerable problem in the Soviet Union because of the lack of horizontal connections between industries. All branches of industry were forced to compete for the

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teknisen yhteistoimintakomitean julkaisusarja 2 [Scientific-Technical Information in the Soviet Union. Joint Publication Series of the Commission of Scientific-technical Cooperation], Helsinki 1978.

[36] RGANI, f. 5, op. 40, d. 52, l. 13-19.

[37] Cf. the case of Finland in 1960, Archive of Foreign Policy of the Russian Federation [Arkhiv Vneshnei Politiki Rossiiskoi Federatsii] (AVP RF) f. 135, op. 42, p. 89, d. 16, l. 5-24. The case of Sweden is very illuminating. RGANI f. 5, op. 40, d. 157, l. 4-23.

[38] RGAĖ, f. 9480, op. 3, d. 1610, l. 42. This information is based on the Finnish example, but similar things can also be found for the case of the Federal Republic of Germany, cf. RGAĖ, f. 9480, op. 7, d. 816, l. 307.

[39] Cf. RGANTD, f. p-18, op. 2-6. d. 204 for the case of the Finnish enterprise Outokumpu.

same materials, which resulted in departmental barriers. Thus, when plan fulfilment was threatened, the tendency was to shift away from new products towards the safe, established ones.[40] This appears to be the problem also in the utilization of information collected by Soviet specialists.

3. The Soviet Union and West Germany: Cooperation and Suspicion

In contrast to interwar technology transfer, which was limited to machines alone, postwar transfers also involved knowhow and expertise. The Soviet Union promoted cooperation with Western countries particularly actively in the early 1960s.[41] For the Soviet Union, one of the main target countries in Western Europe for technology and knowledge transfer was West Germany.[42] As far as technology transfer is concerned, this was a clear continuation of the Stalinist industrialization process, when most of the machinery had been bought from Germany. In the late 1950s, West Germany was already a developed industrial state, especially in the field of electronics and related technologies that were much needed in the Soviet Union. The need for advanced technology and knowhow was the explicit reason for seeking cooperation with West German enterprises and sending Soviet specialists to West Germany.[43]

After the establishment of the GKNT in the late 1950s, the target-oriented organization of cooperation between the Soviet Union and West German enterprises commenced. Soviet specialists participated in scientific conferences and technology exhibitions in order to collect information and to establish connections with Western enterprises and specialists.[44] A good example of this is the Soviet Union's membership in the International Electrotechnical Commission (IEC), where it was possible to become acquainted with Western standards and the latest findings in the field, as well as to meet other members of the Commission. Soviet participation in

[40] HOFFMAN/ LAIRD, 'The scientific-technological revolution', p. 98; BERLINER, Soviet industry, p. 203; RONALD AMANN, Technical Progress and Soviet Economic Development, in: Technical Progress and Soviet Economic Development, p. 5-30, p. 16; NIRONEN, Neuvostoliitto läntisen teknologian tuojana, p. 23.

[41] BERTSCH, Technology Transfers, p. 117, 120; HOLLIDAY, Technology transfer, p. 47.

[42] As early as in 1960, West Germany was prioritized over the United States when it came to cooperation in technology transfer. RGAĖ, f. 9480, op. 7, d. 805, l. 9.

[43] RGAĖ, f. 9480, op. 7, d. 805, l. 39-41.

[44] RGANI, f. 5, op. 40, d. 121, l. 54-55.

the IEC was very active and its general meeting was held in Moscow in 1957.[45] A key event was the international congress and exhibition in Düsseldorf in November 1957. During the conference, Soviet specialists visited not only the exhibition stands but also the production units of West German enterprises in order to familiarize themselves with projects for the automation and development of the machine-building industry. After the excursion, the CC CPSU received a detailed report from the Soviet delegation analysing the main areas of German technology. Based on the specialists' visits to various technology exhibitions, Soviet interest came to focus in particular on firms like Siemens and AEG, which were pioneers in the field of control systems.[46]

According to the system of the GKNT, Soviet ministries and subcommittees suggested the themes of missions and nominated the specialists to be sent. It appears that in the late 1950s and early 60s, when the specialists were mainly senior engineers and technicians from related Soviet ministries and production units, no special selection process, i. e. the estimation of reliability or demand of party membership, took place. Knowledge of the language of the destination area might have been mentioned in the material and was perhaps regarded as an advantage.[47] The names and positions of the nominated specialists were sent to the GKNT by the proposing organization (mainly ministries and state enterprises), and the GKNT then forwarded the supported propositions to the organs of the CC CPSU. In the 1970s, especially in the fields with strategic stature, e.g. atomic energy, the specialists and their families were thoroughly investigated by the party organs (among others) with regard to their political reliability.[48]

The level of implementation also proposed initiatives for visits, but the contacts were established at the state committee level.[49] Research institutes and production units actively suggested missions to West German enterprises when a special technology or information was needed. The Electrotechnical Institute V. I. Lenin proposed a commission to West Germany in order to familiarize its specialists with the enterprises AEG and Siemens-Schuckert.[50] The contact point between the state committees and

[45] RGANI, f. 5, op. 40, d. 67, l. 104-115; see also http://www.iec.ch/index.html, accessed 27 April 2009.

[46] RGANI, f. 5, op. 40, d. 98, l. 9-20. These firms also participated actively in the work of the IEC: RGANI, f. 5, op. 40, d. 67, l. 59.

[47] RGANI, f. 5, op. 40, d. 121, l. 38.

[48] RGANI, f. 5, op. 66, d. 196, l.128; 130; 134-136.

[49] Cf. RGAĖ, f. 9480, op. 7, d. 805, ll- 7-8; 12; l. 119.

[50] RGAĖ, f. 9480, op. 7, d. 805, l. 57. In Russian archival material, the enterprise is referred to as 'Siemens Sukkert'.

West German enterprises was the Soviet embassy in Bonn. According to the assignments issued by the GKNT, the embassy made contact with the selected enterprises. It also collected information on the enterprises and the advanced technology, which was then sent to the GKNT and VINITI.[51] On the Soviet side, visits were well prepared from the point of view of information acquisition. Soviet specialists had a clear plan of action: The sending organization attached a list of questions on technological processes that needed to be answered in the course of the visit. The action plan also included a strategy for disseminating the information in the Soviet Union after the specialists' return home.[52] The main aim of the Soviet Union in this type of cooperation was to obtain the needed information, not necessarily to establish commercial connections with West German enterprises.

Interest in cooperation was mutual – visits were also suggested from the German side to Soviet partners.[53] These visits were reciprocal and, especially in the late 1950s and early 60s, active in both directions. Soviet specialists were mainly engineers, i.e. persons who could apprehend the information during the visits. On the West German side, groups of visitors were smaller and composed by the directors of the collaborative enterprises.[54] In West Germany, there were several reasons why cooperation with the Soviet Union was seen as an opportunity. One of the main reasons was without doubt economic benefit – the Soviet Union represented an eligible trade partner. Markets were large in the Soviet Union, and the country had a high credit ratio.[55] West German companies had taken note of the strong demand for their products in the Soviet Union. In order to advertise the supply, West Germany arranged a technology exhibition in Moscow in August 1962.[56]

An interview with the director of the exhibition, Otto Wolff von Amerongen, in the economic journal *Handelsblatt* from May 1961 was translated by the Soviet embassy. Von Amerongen stated how important it was that the personnel working at the exhibition stands knew Russian and

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[51] Cf. RGAĖ, f. 9480, op. 7, d. 805, l. 200-203; 204; 205-206. The material included catalogues, advertisements, literature and other published information that was openly accessible.

[52] RGAĖ, f. 9480, op. 7, d. 816, l. 304.

[53] Cf. RGAĖ, f. 9480, op. 7, d. 816, l. 74-75; 76; 78.

[54] RGAĖ, f. 9480, op. 7, d. 816, l. 74-75; 88-89.

[55] HANSON, Trade and Technology, p. 123; from the point of view of West German enterprises: KARSTEN RUDOLPH, Wirtschaftsdiplomatie im Kalten Krieg. Die Ostpolitik der Westdeutschen Großindustrie 1945-1991, Frankfurt am Main 2004.

[56] http://www.welt.de/welt_print/article754448/Der_Eisbrecher.html, accessed 27 April 2009.

understood Russian history and politics, as well as German history and politics.[57] This comment demonstrates the West Germans' serious attitude towards cooperation and trade possibilities with the Soviet Union, as well as the sensitive relationship still lingering between the old enemies.

Technology and knowhow transfer between the Soviet Union and West Germany was very active at the end of the 1950s and the beginning of the 60s. Despite the promising beginnings, however, the approaches of the West German partners were not always consistently positive. The attitude towards the Soviet delegates turned negative – at least for a while – in the early 1960s. In April 1962, the Soviet embassy in Bonn reported that Soviet specialists were being accused of 'industrial espionage' by German newspapers, which caused deep concern at the embassy. This campaign and related vilifications entailed cancellations of proposed visits by Soviet specialists to West German enterprises. According to the Soviet embassy, one of the reasons for the 'misunderstanding of the Soviet specialists' was the poor impression created by the Soviet delegates' refusal to answer any questions concerning production in the Soviet Union or the nature of their missions. The Soviet embassy demanded that delegates be trained to deliver 'open' information before being sent abroad.[58] The problems caused by their ignorance of 'open' information and the fear of divulging 'not-open' information certainly must have had a strong impact on the abilities of the Soviet specialists to establish relationships and networks with West German specialists.

The accusations of industrial espionage caused delays in the missions of Soviet delegates to West Germany.[59] These allegations seemed to be the first in a series of problems connected to technology and knowhow transfer between the Soviet Union and West Germany. In spring 1963, Siemens-Schuckert very reluctantly decided to continue cooperation with its Soviet partners. In the ensuing discussion, the German partners proved unwilling to expand technical and economic cooperation. The directors of Siemens-Schuckert invoked the CoCom restrictions to explain their refusal to continue selling electrical locomotives to the Soviet Union. They were worried about the possible problems such sales might entail for the West German government or Siemens-Schuckert.[60] This was the first instance in which

[57] RGAĖ, f. 9480, op. 7, d. 805, l. 32.

[58] RGAĖ, f. 9480, op. 7, d. 805, l. 138. In the late 1950s, discussions were held on open and secret information concerning the scientific and technological development level of the Soviet Union and its production.

[59] RGAĖ, f. 9480, op. 7, d. 805, l. 153-154.

[60] RGAĖ, f. 9480, op. 7, d. 805, l. 404-406.

CoCom is mentioned in the archival materials as a possible factor restricting technology transfer between the Soviet Union and West Germany.

The tone of the report prepared by the Soviet embassy on the negotiations with Siemens-Schuckert was rather concerned. It also strongly emphasized the importance of the Soviet leadership's support for the cooperation: The outcome of the trade negotiations with West German partners should be positive. Although cooperation with West German firms was important for the Soviet Union, it was also noted in the report that the Soviet representatives reminded the leadership of Siemens-Schuckert that they were not the only possible partners for the Soviet Union. The main cause for concern expressed in the report was that the West German attitude towards Soviet initiatives had changed drastically over the course of the past six months. The West German partners had visited Moscow in late autumn 1962 and the visit had been successful in many respects.[61] This case demonstrates the volatility of these sorts of cooperation agreements.

4. Conclusion

Technology and knowledge transfer between the Soviet Union and West Germany is an interesting example of the interactions between countries with different economic and political systems. It shows that technology and knowhow transfer across the Iron Curtain was possible in spite of the restrictions set by the Cold War political rivalry. This becomes apparent when we focus on Europe and European actors. In Western Europe, political issues were left aside when there was a clear commercial benefit involved in the transfer. This case study demonstrates that West Germany's collaboration with the Soviet Union was quite independent. Thus, there was no uniform trade policy towards the Soviet Union throughout the Western bloc as defined by the United States. From the Soviet point of view, economic modernization based on technology and knowledge transfer from the West was considered so valuable that special emphasis was placed on dispelling ideological problems inside the Soviet bloc. The case study also shows that Khrushchev, as leader of the Soviet Union, was open to collaboration with a clear economic benefit for the Soviet side. Soviet–West German cooperation is thus also a good example of the possibilities of bilateral policy utilized by the Soviet Union in the 1960s.

From the vantage point of the Soviet Union, it was a question of acquiring technology and knowhow that could be used to fill the gaps that existed

[61] RGAĖ, f. 9480, op. 7, d. 805, l. 404-406; on the visit see RGAĖ, f. 9480, op. 7, d. 816, l. 74-75, 76, 77.

in Soviet expertise and production. The general aim of the cooperation between the Soviet Union and West Germany in technology and knowhow transfer had been defined as early as in the late 1950s. The Soviet Union's technological level was problematic: It had a successful space programme and computer-based arms control systems, but no capability to translate these innovations into the technological solutions that were essential for the automatization of basic industry. In modernization based on technological progress, the automation of industrial production was the basis for transforming extensive economic growth into intensive growth. As mentioned at the outset, the main problem in the Soviet Union was that there was no connection between the military-industrial complex and the civil sector, as had become established in the West after World War II. Attempts to create advanced technology based on intra-bloc cooperation through COMECON proved to be unsuccessful already in the early 1960s, and this compelled the Soviet leadership to seek cooperation with West European partners through different channels and arrangements. The change in attitudes towards the West and the opening up to cooperation seem to have taken place at the same time. In the early 1960s, the Soviet Union was very active in forging cooperation agreements with Western countries.

For the Soviet Union, the organization of technology and knowledge transfer was a relatively easy task in the early 1960s. As early as in the mid 1950s, a system had been created to organize the acquisition of foreign technology and knowhow and the diffusion of the related information. The establishment of the GKNT created a system that proved to be very effective. The strategy for acquiring technology and knowhow created for the GKNT under Khrushchev was successful and, in contrast to most other systems established by Khrushchev, it remained in place until the end of the Soviet era. The system to collect information was quite effective, but the diffusion of the collected information proved to be more or less ineffective. Because of the inability to translate the collected knowhow into domestic innovations, the Soviet Union was to remain dependent on foreign technology throughout the entire Soviet period.

In the Western bloc, West Germany was one of the main partners for the Soviet Union in technology transfer in the late 1950s and early 60s. In many ways, Soviet-West German cooperation was similar to the scientific-technical cooperation (*nauchno-tekhnicheskoe sotrudnichestvo*) that the Soviet Union launched and promoted among many Western governments in the mid 1950s.[62] Soviet-West German cooperation involved not only tech-

[62] BERTSCH, Technology Transfers, p. 117, 120; HOLLIDAY, Technology transfer, p. 47. The Soviet-West German agreement on scientific-technical cooperation was concluded in 1959. The cooperation was still based on direct connections between the GKNT and West

nology transfer but also the transfer of knowhow and expertise. From the point of view of the Soviet Union's basic scientific-technical cooperation with the West, the main difference in the West German cooperation was that the Soviet Union worked directly with enterprises, not with commissions, as was the case with Finland, for example. In contrast to basic scientific-technical cooperation, which was noncommercial, Soviet-West German cooperation was mainly commercial. This proved to be one of the problems in the early 1960s, when attitudes towards its Soviet partners cooled in West Germany.

The effective system of Soviet acquisition of technology and especially knowhow seemed to be in conflict with the idea of commercial cooperation. During their missions, Soviet specialists collected information based on well-planned agendas. Commercial technology transfer remained at a rather moderate level because reverse engineering was one of the main aims of technology acquisition. Soviet learning by doing was based on examining the product itself and deducing the techniques of the manufacture, e.g. electric locomotives or process techniques. When the Soviet Union bought technology for the purpose of reverse engineering, the benefit for the Western partner was not necessarily as high as expected because no further purchases followed. Accusations of industrial espionage in the early 1960s can also be understood as the outcome of the organized Soviet style of collecting information. Problems arose when the benefit was not mutual and reciprocity did not come to fruition.

The crux of the matter was the Soviet Union's unwillingness or ineptitude to recognize the difference between commercial and noncommercial transfers and the meaning of license and patent agreements. Similar attitudes towards cooperation with the Soviet Union can also be observed in Finland, where the obviously target-oriented behaviour of the Soviet delegates was sometimes perceived as inappropriate. The main reason for the negative attitude here was the Soviet side's eagerness to obtain detailed information on those processes that were forbidden under patent agreement.[63]

The CoCom embargo did not prevent technology transfer between the Soviet Union and West Germany, but CoCom restrictions were used by West German partners as a pretext for certain decisions. Despite the cooler phases in cooperation and some disagreements between the partners, the

German enterprises. Archive of the Russian Academy of Sciences [Arkhiv Rossiiskoi Akademii Nauk (ARAN)], f. 579, op. 13, d.147, l. 1-15.

[63] Neste Oy:n vastaus TT-komission tiedusteluun [Response from enterprise Neste to the inquiry of the ST-commission] 16 October 1961. File Ad 13/3647-55, Foreign Ministry Archive, Finland [Ulkoministeriön arkisto (FMA)].

long tradition of technology transfer between the Soviet Union and West Germany continued. Economic cooperation expanded and intensified even after Khrushchev's removal from power. In the late 1960s, Siemens started to export third-generation computers and components to the Soviet Union and the COMECON countries.[64] In the end, however, although the Soviet Union managed to trade with the West and to transfer foreign technology notwithstanding the restrictions created by the Cold War, it failed to modernize its economy and to create a basis for intensive economic growth.

[64] WILCZYNSKI, Technology, p. 113.

Małgorzata Mazurek

Beyond the Iron Curtain

Experts, Consumer Rights and the Challenge of the Political in Poland (1980–89)

In the transatlantic American and Western European history of the twentieth century, the expert consumer was one of the most characteristic figures associated with a shift from the era of necessity to the postwar era of affluence.[1] With the emergence of nutrition science and large-scale health and social policies, and thanks to the postwar boom of mass consumption, experts in the sphere of consumption operating through organized activism for and in the name of consumers significantly gained in importance. At the beginning, the development of consumer expertise was linked with working-class and cooperative movements. In the aftermath of World War I, the state entered the scene of consumer activism. Within the next decades, marked consecutively by the economic crisis of the 1930s and politics of food rationing in World War II, consumers became an object of the broader process of the professionalization of social and economic policies.

In the era of post-1945 state interventionism, the idea of organized consumer representation came to span the entire globe.[2] However, not only mass consumption and comparative testing were prominent issues for consumer expertise at that time, which was marked by the Cold War and decolonization. Expanding internationalism defined issues of necessity such as hunger, nutrition standards and access to basic goods as a social problem, or, even more broadly, as a global concern. Characteristically, recent contributions on the humanitarian discovery of hunger place the expert

[1] Au Nom du Consommateur. Consommation et Politique en Europe et aux États-Unis au XXe Siècle, ed. by Alain Chatriot/ Marie-Emmanuelle Chessel/ Matthew Hilton, Paris 2004 (English edition: The Expert Consumer. Associations and Professionals in Consumer Society, Ashgate 2006).

[2] Matthew Hilton, Prosperity For All. Consumer Activism in an Era of Globalization, Ithaca 2008.

consumer at the centre of modern politics leading towards the recognition of consumer rights.[3]

But how does this narrative fit into the history of the Communist regimes in East Central Europe? Was the expert consumer, like in Western European countries, an intermediary between the state and the ordinary buyer? Taking into account three decisive features of the region after 1945, namely Soviet influence, dictatorship and shortage economy, one should first ask whether consumerism, defined as the institutionalized activism of consumers and their representatives, emerged on the eastern side of the Iron Curtain at all. And if so, what sorts of forms did it assume in terms of political language and action?

The historiography of Communist Poland, which serves as a case study here, has so far not delivered exhaustive answers to these questions.[4] The very notion of the expert consumer does not relate to any established narratives of contemporary Polish history: In the last two decades, historians have talked about the 'intelligentsia' and the 'workers' without introducing further distinctions between 'intelligentsia' and 'experts' or between 'workers/citizens' and 'consumers'.[5] Similar problems become apparent when reviewing the current literature on human rights, which is only beginning to historicize economic and social rights.[6]

This article aims to integrate a history of experts and consumers in the Soviet bloc, embedded in recent accounts of transnational and international politics of the social after World War II. There are at least two ways to approach this topic: The first one narrates the politicization of consumption through the lenses of the shortage economy and the Cold War,[7] the second

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[3] JAMES VERNON, Hunger. A Modern History, London 2007; HILTON, Prosperity For All, p. 185-213.

[4] The studies on the GDR, however, offer more insights into the relationship between party-state experts and the politics of consumption. MARK LANDSMAN, Dictatorship and Demand. The Politics of Consumerism in East Germany, Cambridge, MA 2005; KARIN ZACHMANN, A Socialist Consumption Junction. Debating the Mechanization of Housework in East Germany, 1956-1957, in: Technology and Culture 43 (2002), p. 75-101; JONATHAN R. ZATLIN, The Currency of Socialism. Money and Political Culture in East Germany, New York 2007; Socialist Modern. East German Everyday Culture and Politics, ed. by PAUL BETTS/ KATHERINE PENCE, Ann Arbor 2008.

[5] A recent review article on Polish history in the twentieth century is PADRAIC KENNEY, After the Blank Spots Are Filled. Recent Perspectives on Modern Poland, in: Journal of Modern History 79/1 (2007), p. 134-171.

[6] The newest critical summary of the historical agenda of human rights is: Human Rights in the Twentieth Century. A Critical History, ed. by STEFAN-LUDWIG HOFFMANN, Cambridge (forthcoming).

[7] MAŁGORZATA MAZUREK, Społeczeństwo kolejki. Więzi społeczne i doświadczenia niedoboru, Warszawa 2010.

one treats Poland in the context of a common European postwar challenge – as one among the many European regimes influenced by state interventionism and international norms of consumer protection. The question of approach becomes even more interesting if we consider the perspective of the historical actors: While the experts referred openly to the international debates on social policy and consumption, at least after 1956 consumers were concerned with the very fact of shortages, bad quality of production, and eventually with the inefficiency of the one-party state in fulfilling its promises. An independent consumerism in late Communist Poland, which emerged from the revival of the public sphere in 1980–81, tried to reconcile expert knowledge with popular expectations vis-à-vis the politics of consumption. The juxtaposition, harmonization and confrontation of expert conceptions of consumer rights as well as the popular collective imagination constituted a major challenge of the political after 1956 in Poland. With this last point I am referring to a notion of agonistic and collective political expression[8] which came to full fruition at the turning points of postwar Polish history: 1956, 1980 and 1989.

The political use of consumer rights, as two stories elaborated below will demonstrate, exposed the limits of communication between the experts and society as well as between the experts and the state. *Federacja Konsumentów* (FK), an expert association founded in 1981, incorporated the diction of international consumer rights into its programme in order to discuss the issue of consumer protection within the party-state bodies. The expert consumers of the *Solidarność* movement, in turn, employed the concept of rights to pursue alternative and dissident ideas of self-government and, later on, their notion of a civil society based on market economy. In conclusion, I will attempt to convey how these contradictory approaches to consumer rights contributed to the political transition of 1989 and the transformation of consumerism during the shift from state socialism to capitalism.

1. Polish Expert Consumerism in the Post-Stalinist Period

Polish postwar discourse on consumer rights and the emergence of an expert consumer went hand in hand with the post-Stalinist liberalization of

[8] I refer to a notion of the political informed by the works of Chantal Mouffe and Carl Schmitt. See CHANTAL MOUFFE, On the Political, Abingdon 2005; WILLIBALD STEINMETZ, Neue Wege einer historischen Semantik des Politischen, in: 'Politik'. Situationen eines Wortgebrauchs im Europa der Neuzeit, ed. by WILLIBALD STEINMETZ, Frankfurt am Main 2007, p. 9-40.

the socialist political regimes and economies (1956–58). Following the revival of the public sphere and the self-management movement in the factories, experts from the Institute for Domestic Trade (*Instytut Handlu Wewnętrznego*, IHW) introduced the language of rights and individual consumer protection. In 1958, the new pressure group, consisting of experts from government institutions like IHW and academics from economy departments,[9] launched a pro-consumer campaign in the expert periodical *Handel Wewnętrzny* (Domestic Trade). Its authors believed that economic liberalization would lead to the development of a state-controlled and, at the same time, consumer-friendly market.[10] The answer of *Handel Wewnętrzny* to a question from one consumer, namely whether 'we, rank-and-file citizens-purchasers, have any rights vis-à-vis state-run trade, and any legal sanctions at our disposal in case a seller breaks the law', reflected this critical, but optimistic attitude:

> 'You bring up a problem that is closely linked with the issue of the "buyers market". The state of chronic shortages has contributed to the development of a wrong buyer-seller relationship. The buyer makes advances to the seller, who puts on the attitude of a ruler willing to be asked but not ready to accept any demands. It is connected with the quite incorrect, but widespread assumption that if the shop belongs to the state, it is a kind of office. Therefore, the purchaser is a kind of petitioner.'[11]

The late 1950s in Poland thus constituted a short revival of consumer rights discourse that pointed out the pathologies of the socialist petitioning system. However, the post-Thaw debate on pro-consumer politics had a strictly expert character and did not succeed in attaining significance in the popular media, e.g. radio or newspapers.

In expectation of the democratization and liberalization of the socialist command economy, Polish experts derived most of their ideas and inspirations from contemporary Western literature on consumer protection, which at first glance seemed to be applicable. Indeed, postwar consumer movements in Europe and the U.S.A. opted for state-interventionist and regulatory solutions in the politics of consumption while at the same time criticiz-

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[9] In his book on the politics of consumption and the expert consumers in the GDR mentioned in note 4, Mark Landsman applies the Western term 'consumer lobby'. I opt for the term 'consumer pressure group', which is less normative and less linked to the Western capitalist economies.

[10] Czy sklepy uspołecznione mają jakieś określone obowiązki w stosunku do nabywców? in: Handel Wewnętrzny 6 (1958), p. 120-122. On the theoretical model of the buyers' and sellers' markets, see JÁNOS KORNAI, The Socialist System. The Political Economy of Communism, Cambridge 1992, p. 245-252.

[11] Czy sklepy uspołecznione, p. 120 (author's translation).

ing the shortcomings of laissez-faire capitalism. Therefore, this kind of critical approach, though conceptualized by Western experts, could have been transferred to Poland without the need for much censorship. Moreover, European consumerist institutions, especially French and Scandinavian ones, demonstrated ready ways of organizing state-sponsored consumerism, which inscribed rights and regulations favourable for consumers in the state legal framework.[12]

Such a model seemed to be particularly interesting and fitting for post-Stalinist Eastern European countries in their transition to planned, industrial, but also consumption-oriented economies. What also attracted the attention of the Polish consumer pressure group was a general and broad definition of consumer protection in the Western countries. As opposed to the socialist system, not only did it embrace the position of the consumer vis-à-vis trade, it also paid attention to broader economic concerns important to the average citizen such as purchasing power or social rights and social protection.[13]

The first programmatic call for a consumer movement in Poland was announced in 1958 in the economic weekly *Życie Gospodarcze* by the then vice director of the Institute for Domestic Trade:[14]

> 'The emergence of a buyers market entails that the consumer plays a central role. To make it happen, a consumer protection system is needed. The sheer possibility of making a free choice is not enough. For example, in capitalist countries, where a bigger supply does not always mean a better choice, monopolistic tendencies are commonplace. We need some reflection on the protection of consumers in the capitalist countries to comprehend our problems. It seems that such an international comparison will help us consider whether in our regime the problem of consumer protection will change with the emergence of a buyers market. Will our current institutional system be sufficient? […] However, in my opinion, the best solution would be to entrust consumers both with organization and realization of control over trade. There is no need to additionally engage state administration. Let the active and independent consumers set up their own association.'[15]

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[12] ALAIN CHATRIOT, Associations and the State. Protection and Defence of the Consumer in France, 1950-2000, in: CHATRIOT, CHESSEL, HILTON, The Expert Consumer, p. 123-136; Cold War Kitchen. Americanization, Technology, and European Users, ed. by RUTH OLDENZIEL/ KARIN ZACHMANN, Cambridge, MA 2009.

[13] EDWARD WISZNIEWSKI, Ochrona konsumenta w krajach kapitalistycznych, in: Handel Wewnętrzny 6 (1958), p. 48-57, p. 48.

[14] EDWARD WISZNIEWSKI, Potrzebna ochrona konsumenta, in: Życie Gospodarcze 4 (26 January 1958), p. 1.

[15] Ibid. (author's translation).

This appeal remained on paper. In fact, while the consumer pressure group was formulating and specifying its programme, step by step the state was regaining control over the fledgling civil society. At the end of 1958, the Polish United Workers' Party managed to suppress the self-management movement in the factories. The resolution on democratization and liberalization of the trade economy, passed in April 1958,[16] also lost its practical meaning. The formal existence of pro-consumer legislation was not enough to put it into effect because in the reality of the reconsolidation of party-state power, the law was nothing more than an arbitrary fiat. Moreover, the sustainable liberalization of the socialist economic system turned out to be an illusionary hope, as a number of plan directives started to take shape again already at the end of the 1950s.

The rationale of administrative management, creating pressure to apply direct commands and restrictions as well as restoring the superiority of industry over the 'non-productive sectors', made economic reforms in the politics of consumption rather transient and extremely difficult to put into practice. As a result, the early post-Stalinist criticism expressed by the experts from the Institute for Domestic Trade towards the trade and services apparatus remained justified, while the reasons for optimism dwindled.

2. The Origins of the *Federacja Konsumentów*

The very same milieu of experts renewed its attempts to relaunch consumerism in the 1970s, though with no clear and positive outcome. In the 1960s and 70s, the expert economists developed a set of notions diagnosing the consumer situation under the command economy. According to them, the shortage economy resulted from over-bureaucratized central planning. At that time, it became clear that the 'regime of the producer and the seller' would not be replaced by the 'regime of the buyer' until the economy underwent profound pro-market reforms.[17] Indeed, at the eve of the 1980s, twenty years following the Thaw, the consumer pressure group

[16] Uchwała nr 106/58 Rady Ministrów z dnia 14 kwietnia 1958 r. w sprawie rad nadzoru społecznego w państwowych przedsiębiorstwach hurtu resortu handlu wewnętrznego, in: Monitor Polski 1958, no. 27, poz. 160, p. 238.

[17] JAN PINDAKIEWICZ, Ochrona interesów konsumenta a działalność handlu (sprawozdanie z konferencji), in: Handel Wewnętrzny 1-2 (1974), p. 132-135, p. 132; WŁADYSŁAW BAKA, Problemy kształtowania sprawnego rynku, in: Problemy ochrony konsumenta, ed. by REMIGIUSZ KRZYŻEWSKI, Warszawa 1980, p. 38-51.

stemming from the expert circles became one of the most critical opponents of the party-state economic policy.

The political impulse to translate the theoretical framework of expert consumerism into a grass-roots organization came with the emergence of the *Solidarność* mass movement in the summer of 1980. The government and academic experts, who relied on the concepts of Western state consumerism, did not join the new independent trade union. However, they decided to set up their own organization that would focus primarily on addressing consumer issues in the public sphere. In January 1981, more than twenty years after the first programmatic proclamation of Polish consumerism, the experts from Institute for Domestic Trade, together with economic publicists from *Życie Gospodarcze* launched an appeal to join an 'independent and uncompromising' association of consumers.[18] The action, supported by the majority of Polish official media, aimed to unite under one roof everyone who wanted to act in the interest of consumers.[19]

However, Andrzej Nałęcz-Jawecki, a charismatic leader of the journalist group and shortly afterwards the first chairman of the *Federacja Konsumentów* (FK), appealed in his initiation article in *Życie Gospodarcze* above all to the economists, lawyers, journalists, commodity specialists and other professionals in the area of consumption and home economics.[20] Characteristically, in the central council of the FK, the most numerous group by profession was composed of academics with a Ph.D. in economics.[21] In consequence, the specialists with professional expertise who joined the FK nationwide set the tone of the whole initiative and gave the movement its internationally comprehensible name.

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[18] JANUSZ DĄBROWSKI, Co dalej z ochroną konsumenta? in: Życie Gospodarcze 3 (18 January 1981), p. 1-5, p. 5.

[19] ANDRZEJ NAŁĘCZ-JAWECKI, Właśnie teraz! in: Życie Gospodarcze 6 (8 February 1981), p. 6; ANDRZEJ NAŁĘCZ-JAWECKI, I Zgromadzenie Ogólne Federacji Konsumentów, in: Życie Gospodarcze 46 (15 November 1981), p. 8; ANDRZEJ NAŁĘCZ-JAWECKI, Pierwsze kroki Federacji Konsumentów, in: Problemy Jakości 3 (1982), p. 16-20, p. 17.

[20] ANDRZEJ NAŁĘCZ-JAWECKI, Miejsce fachowców, in: Życie Gospodarcze 10 (8 March 1981), p. 6; Drugi rok działalności Federacji Konsumentów, in: Biuletyn Federacji Konsumentów 1-2 (1983), p. 11-29, p. 11.

[21] JOLANTA SUPIŃSKA, Ruch konsumencki w Polsce. Zarys problematyki, in: Zaradność społeczna. Z badań nad społecznymi inicjatywami w dziedzinie rozwiązywania problemów Polski lat osiemdziesiątych, ed. by JERZY KWAŚNIEWSKI/ ROBERT SOBIECH/ JOANNA ZAMECKA, Wrocław 1990, p. 135-151, p. 140.

3. Expert Consumers Association, *Solidarność* and the International Impact

In the first months of its existence, the FK did not manage to appeal to the mass membership of *Solidarność*. The FK opted for an apolitical identity of consumers and, more generally, for the depoliticization of the consumer rights agenda. This moderate attitude enabled it to introduce important consumer concerns such as the inefficiency of the socialist petitioning system to the mainstream of Polish media and to enter the international stage of consumer organizations. In the long run, however, the FK tended to retreat into its specialized circle of experts. At the central level, the FK chair council controlled the work of local chapters, but rarely engaged in or initiated activities on the ground. The experts preferred cabinet discussions and willingly took part in the top official bodies. Some of the top-rank activists established close ties with the central party-state establishment or even became part of it: The chairwoman of the FK, Małgorzata Niepokulczycka, was a member of the Polish parliament, Anna Kędzierska briefly held the position of minister for the domestic market and consumption, and Ewa Łętowska, an FK expert for consumer jurisdiction, in 1987 became the first ombudswoman (and ombudsman, for that matter) in Poland.[22] The FK was represented in such government bodies as the socio-economic council at the Polish parliament, the housing and domestic trade council and the family council at the council of ministers, as well as the central extraordinary board for the fight against speculation, the prices affairs council and many others.[23]

At the end of the 1980s, the FK had approximately ten thousand members organized in one hundred local chapters. This, compared to the mass membership of *Solidarność*, is not a very large number. However, it would be overly simplifying to reduce its impact to national and local statistics: Due to its legal status and reliable moderate image, the Polish consumer movement was given credit by an international audience. In 1987, the FK became a member of the International Organization of Consumer Unions (IOCU) as the first consumer organization from a Communist country.[24]

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[22] JOANNA ARCIMOWICZ, Rzecznik praw obywatelskich. Aktor sceny publicznej, Warszawa 2009.

[23] Sprawozdanie Rady Krajowej Federacji Konsumentów (za okres II kadencji grudzień 1983–styczeń 1987), in: Biuletyn Federacji Konsumentów 4-5 (1987), p. 36-39.

[24] Od redakcji, in: Biuletyn Federacji Konsumentów 4-5 (1987), p. 3. Wystąpienie przedstawiciela IOCU (Międzynarodowego Związku Organizacji Konsumenckich) Leo M. Mudde, 30-31.01.1987, in: Biuletyn Federacji Konsumentów 4-5 (1987), p. 21-23. More on the International Organization of Consumer Unions can be found in HILTON, Prosperity for All.

From the larger perspective of the Soviet bloc, the FK functioned as a strong, experienced and expansive association that was able to spread consumerist knowhow among the other socialist countries. Eventually, in the wake of perestroika, the Polish consumer organization was designated by the IOCU as an intermediary between Western and Eastern European consumerist institutions. The integration of the Central and Eastern European countries under the umbrella of international consumerism one year before the collapse of the Soviet bloc was one of the numerous ironies of the postwar European consumer movement. However, this story was eclipsed by a much more powerful historical change in that part of Europe: the birth and repression of the consumer movement within *Solidarność*.

4. Experts from the Democratic Opposition

In the late 1970s, a programme of politically engaged consumerism started to emerge also within the dissident milieu.[25] In the reports issued by the democratic opposition in *samizdat* publications, the consumer was not just an economic, but also a socio-political category.[26] According to economists from dissident circles, postwar Polish society had been excluded from the economic decision-making processes und thus politically disempowered. Consumers suffered from the misappropriation of the economy by the party-state apparatus: from a lack of transparency and reliable information, from informal trade-offs between strong industrial lobbies and party-state bureaucrats, and from falsified statistics concerning issues such as the real cost of living.[27] In order to overcome party-state arbitrariness and lawlessness, the dissident economists appealed, consumers had to regain a voice and an impact on social and economic policies. An ultimate goal of consumer empowerment, according to the dissidents, was a democratic planned economy, a system in which consumers would have their say on an equal level with the industrial interest groups, the government administra-

[25] On the dissident milieu and dissident language in Poland before 1980: AGNES ARNDT, Intellektuelle in der Opposition. Diskurse zur Zivilgesellschaft in der Volksrepublik Polen, Frankfurt am Main 2007; ROBERT ZUZOWSKI, Political Dissent and Opposition in Poland. The Workers' Defence Committe 'KOR', London 1992.

[26] Warsaw University Library, Social Life Documents Collection, loose materials, Konwersatorium 'Doświadczenie i Przyszłość'. Zespół Usługowy, Wstępny, roboczy zestaw hipotez i propozycji do dyskusji nad tematem 'Społeczeństwo wobec kryzysu', 9 November 1980, p. 14-15; Krajowa Konferencja NSZZ 'Solidarność', Reforma gospodarcza a warunki realizacji porozumień społecznych, in: Zeszyty problemowe NSZZ 'Solidarność' MKZ Ziemi Łódzkiej, no. 1 (December 1980), p. 5-9.

[27] EDWARD LIPIŃSKI et al., Uwagi o sytuacji gospodarczej kraju, Warszawa 1978.

tion and, last but not least, with the party-state leaders. At stake was not just the legal protection of buyers, but also a politically more radical idea of 'consumer defence'. An employee self-administration in the enterprises as well as 'an independent consumer movement equipped with the right of pro-consumer intervention'[28] were thus important facets of the future democratic and consumer-friendly economic order that would replace the discredited command economy as imagined by Polish dissident economic experts in 1978.

Unlike the expert milieu at the Institute for Domestic Trade, the democratic opposition did not refer to the international agenda of Western consumerism as promoted by organizations associated with the United Nations such as the IOCU. Rather, they envisioned the defence of consumers along the lines of the European traditions of nineteenth- and early twentieth-century syndicalism and cooperative movements.[29] In one of his first articles for the *samizdat* press, Krzysztof Hagemejer, a major pro-consumer expert from the democratic opposition, wrote:

> 'The consumer movement – a defence of consumers' interests – originates from trade unions and the cooperative movement. It should and can be its inseparable part. [...] The consumer movement, alongside the cooperative, trade union and self-government movements, is a school of democracy, and therefore of democratic planning.'[30]

According to Hagemejer, consumer movement activities and institutions were to embrace all realms of social life. In socialist enterprises, consumer councils would decide on the product line as well as on the quality of the manufactured goods. In shops, consumer committees would control commodity deliveries and appropriate provisioning. Even in the local communities, the consumer voice would be institutionalized in the self-governing councils monitoring the erection and distribution of apartments. Therefore, the empowerment (*upodmiotowienie*) of buyers, as outlined in Hagemejer's proposals, reached far beyond the actual experience of shopping and consuming. Moreover, it referred to a notion of civil society by stressing the importance of grass-roots actions as opposed to the expert-centred idea of an association 'speaking in the name of consumers'. Hagemejer had no

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[28] Ibid., p. III (author's translation).

[29] The collective politics of consumption peaked in the interwar period before affluent consumer cultures emerged in the West in the 1950s and 1960s. MATTHEW HILTON, Consumerism in 20th Century Britain. The Search for a Historical Movement, Cambridge 2003, p. 27-164.

[30] KRZYSZTOF HAGEMEJER, Konsument, plan, demokracja, in: Głos. Niezależny miesięcznik społeczno-polityczny 3 (1977), p. 35-38, p. 37 (author's translation).

doubts that consumer self-organization in Poland was already a fact, be it in spontaneously created queuing committees or ad hoc consumer boycotts like the one in Silesia in 1979, when mining workers refused to pay in dollars in the foreign currency shop *Pewex*. They protested against dividing society into the dollar haves and have-nots.[31]

It seems that other dissident economists projected the idea of consumer defence along the lines of a democratically planned economy as described by Hagemejer only as a temporary solution. Solving buyers' concerns by means of self-governed and grass-roots control over enterprises and shops was regarded as a first step towards winning people's confidence in the democratic opposition. As a second step, however, these experts called for the abolition of the fixed-price system and for more liberal workforce management so that a market economy could be introduced. From the consumers' and employees' point of view, this would mean inflation and a consequent worsening of living standards, not to mention the spectre of unemployment. Since the Polish democratic opposition represented a wide range of economic views,[32] consumer-oriented projects competed with visions of a free market economy as proposed by Leszek Balcerowicz and Janusz Beksiak, the future masterminds of the post-1989 'shock therapy'.[33] Still, the notion of consumer rights remained a common denominator for all experts who joined *Solidarność* in 1980–81.[34] During the first Domestic Reunion of *Solidarność* Delegates in September 1981, the concept of the 'institutionalization of consumer rights' was included into the programme of *Solidarność*, which also comprised projects on anti-monopoly law and consumer organizations.[35]

Notwithstanding divergent programmatic and political affiliations, the experts from *Solidarność* had a lot in common with their colleagues from *Federacja Konsumentów*, and even with the party-state and government economic representatives. Actually, the borders between the three networks were fluid, the biographies connected and the world-views overlapped. At

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[31] KRZYSZTOF HAGEMEJER, Równi i równiejsi, czyli o krajowcach dewizowych i bezdewizowych, in: Robotnik 32 (30 April 1979), p. 2.

[32] DARIUSZ T. GRALA, Reformy gospodarcze w PRL (1982-1989). Próba uratowania socjalizmu, Warszawa 2005; WŁADYSŁAW BAKA, U źródeł wielkiej transformacji, Warszawa 1999.

[33] Das Balcerowicz-Programm. Konzept, Realisierungsschritte, Zwischenergebnisse, ed. by HENRYK BAK/ PIOTR PYSZ/ ROLAND SCHAFF, Erlangen 1991.

[34] 'Karta' Center Archive, Komunikat Zjazdowy, NSZZ 'S' Zarząd Regionalny Ziemi Łódzkiej, Siódmy dzień, druga tura, no. 28 (2 October 1981), unpaginated.

[35] Program NSZZ 'Solidarność' uchwalony przez I Krajowy Zjazd Delegatów, NZSS 'Solidarność' Uniwersytetu Warszawskiego, Warszawa 1981, p. 5; Propozycje do programu NSZZ 'Solidarność', in: AS. Biuletyn pism związkowych i zakładowych 38 (1981), p. 16.

the turn of the 1980s, the dissident as well as FK experts were part of the 'revolt of experts' (*bunt ekspertów*), to use the expression of contemporary sociologist Jolanta Supińska.[36] For example, Janusz Beksiak, before becoming one of the top economic advisers of *Solidarność* and immediately before joining the independent trade unions movement, had been in charge of the economic committee assigned by the first party secretary, Edward Gierek, in the years 1977-79. Ten years later, at the 1989 Round Table negotiations (*rozmowy Okrągłego Stołu*) which paved the way for political transformation, Beksiak recalled his pre-*Solidarność* career as Gierek's adviser:

> 'At the end of the 1970s we tried to change the economic thinking of the contemporary party-state officials. However, after one and a half years I found it an idle discussion. Regardless of the intellectual level of the party-state politicians, they pursued completely different goals and adhered to completely different decision-making criteria than the academics. That is why experts and party officials did not communicate well. My sparse contacts with Edward Gierek taught me that despite his sympathetic attitude towards us, he did not draw any conclusions from our expertise.'[37]

The informal connection between dissident and non-dissident experts is also reflected in the common language and sense of cultural and social background they shared. This was particularly the case in August 1980, when *Solidarność* was born and dissident experts came to the striking workers at the Gdańsk Lenin Shipyard to help Lech Wałęsa and his colleagues negotiate their protest demands vis-à-vis the government. Jadwiga Staniszkis, a renowned sociologist and one of the key dissident advisers of the fledgling social movement, reported on the atmosphere among the experts during the strike at the shipyard:

> 'During the first meeting of the working group, a peculiar atmosphere and gentle, ironic tones predominated. One of the reasons was that experts on both sides were more or less members of the same Warsaw society: government experts as somewhat critical but still loyal professionals, we as perhaps more openly critical of Gierek's "window dressing" liberalization pattern. We could very easily have changed places (if only our political attitudes were taken into account). This atmosphere made the negotiations easier: elements of truth existed already; leaks from both sides helped us work more smoothly. There was, in addition, a surreal atmosphere of familiarity that facilitated bargaining; it created a peculiar detachment from the context of our talks and overshadowed

[36] SUPIŃSKA, Ruch konsumencki, p. 142.

[37] Okrągły Stół. Kto jest kim. 'Solidarność'. Opozycja, biogramy, wypowiedzi (książka wydana z inicjatywy Komitetu Organizacyjnego przy Lechu Wałęsie), ed. by WOJCIECH ADAMIECKI, Warszawa 1989, p. 239 (author's translation).

such facts as the crude blackmail of the telephone blockade, in which our interlocutors were involved [...]. On the other hand, this atmosphere dangerously increased internal loyalty within the bargaining group: it was one of the main reasons why, for the sake of the talks, the workers were not informed about the crucial details and changes made in the working group. We ended the first meeting in an optimistic mood.'[38]

5. Institutions and Ideas of the *Solidarność* Consumer Movement

The close and connecting interactions between the experts from the democratic opposition and the government professionals, described by Jadwiga Staniszkis in her analysis of *Solidarność*, contributed to the success of the Gdańsk agreements from 31 August 1980. Apart from Staniszkis, however, nobody at the time was eager to mention the sense of familiarity between the two negotiating sides. In the popular narrative, experts did not play a prominent role in the success of the shipyard strike and hence in the emergence of *Solidarność*: First and foremost, the new independent trade unions succeeded thanks to the determination of the protesting workers and the ties of solidarity which had brought together so many people from all over the country in a wave of mass strikes.[39] It was a mode of resistance and mass movement dynamics that became a symbol of *Solidarność* rather than a mode of negotiations and compromise as embodied by the expert advisers.

Still, from the point of view of the experts who were actively involved in *Solidarność*, a readiness to cooperate with workers in developing their programmes and institutions distinguished them from their more party-state-conform colleagues. After all, the opposition experts were thrilled by the emergence of a mass social movement, which brought the realm of the political back into social life. At stake was a clear distinction between the official and the *Solidarność* style of the expert consultancy.

While organizing academic seminars or creating a myriad of advisory bodies within the *Solidarność* structures, they were searching for their own political language. A tradition to which they referred quite instinctively was an intelligentsia ethos of civic duty and responsibility for the fate of soci-

[38] JADWIGA STANISZKIS, Poland's Self-Limiting Revolution, ed. by JAN T. GROSS, Princeton 1984, p. 55-56.

[39] HARTMUT KÜHN, Das Jahrzehnt der Solidarnosc. Die politische Geschichte Polens 1980-1990, Berlin 1999; JAN KUBIK, The Power of Symbols against the Symbols of Power. The Rise of Solidarity and the Fall of State Socialism in Poland, University Park 1994.

ety.[40] And the cultural code of intelligentsia civility moreover served as a way to establish a dialogue with the workers, whom, in fact, the experts did not know well.

The dissident experts hoped that the times when their reports were simply stored in the desks of the party-state officials were over. Since the birth of *Solidarność*, they envisioned that a new style of expertise would emerge, namely one free of the 'deformations that "official social sciences" had often produced'.[41] For example, the task of the Centre for Social Research (*Ośrodek Badań Społecznych* – OBS), established in 1980 within the regional *Solidarność* chapter in Lublin, 'was to fulfil service functions vis-à-vis the syndicalists and to address their real needs'. It also expressed the following hope:

> 'Close relations between the OBS and the [*Solidarność*] Union and the presentation of alternative strategies in specific areas of workers' interests may guarantee that we will not share the destiny of all that expertise kept in the ministries and party committees, which, as a matter of fact, remains "socially dead".'[42]

Social utility, communicative language and authenticity, as opposed to bureaucratized and politically isolated knowledge, was thus a major motto of the *Solidarność* generation of experts.

As already mentioned, since the late 1970s dissident experts dealt with employee and consumer issues in their diagnoses and memoranda. Not surprisingly, the famous Gdańsk agreements from August 1980 already contained some of their ideas. Not only did they create favourable conditions both for better protection and recognition of consumer rights, they also ensured formal collaboration between experts and the new independent trade unions. The August 1980 agreements included precise notations about the trade unions' impact on consumer issues and the state-run distribution system.[43] It has often been forgotten that strike demands, apart from the widely known claims for political freedom,[44] contained a number of issues which we could today define as consumer rights claims. For example, a

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[40] MACIEJ JANOWSKI/ JERZY JEDLICKI/ MAGDALENA MICIŃSKA, Dzieje inteligencji polskiej do roku 1918, Warszawa 2008.

[41] LESŁAW PAGA/ JAN POMORSKI, OBS o sobie, in: Zeszyty problemowe Ośrodka Badań Społecznych Lublin. NSZZ 'Solidarność'. Region Środkowo-Wschodni 1 (1981), p. 1-6, p. 1-2.

[42] Ibid. (author's translation).

[43] Protokół porozumienia zawartego przez Komisję Rządową i Międzyzakładowy Komitet Strajkowy w dniu 31 sierpnia 1980 r. w Stoczni Gdańskiej, in: Porozumienia społeczne 1980–1981, ed. by JANUSZ GMITRUK/ JAN SAŁKOWSKI, Warszawa 2005, p. 15-29.

[44] Solidarność w ruchu 1980–1981, ed. by MARCIN KULA, Warszawa 2000, p. 39-55; IRENEUSZ KRZEMIŃSKI, Solidarność. Projekt polskiej demokracji, Warszawa 1997.

demand for a more transparent information policy on the socio-economic situation in the country may be interpreted as a consumer's right to information; the claim for the defence of workers' purchasing power was visible in point no. 9 about the indexation of wages and salaries proportionally to the rate of inflation. Other demands referring to the distribution of necessities, like the demand for meat rationing (point no. 13), or, more generally, the call for 'a real improvement in provisioning policy' (point no. 6), represented a typical consumer-oriented agenda. Having emerged from the workers' protest, however, *Solidarność* tackled a number of consumer issues that turned out to be crucial in the following months of deepening economic crisis. Thus it was consumption, not production, which became the main issue of popular concern: The economic experts were to assist and advise their fellow trade unionists as they evolved from protesting workers to even more frustrated consumers.

The institutional background of the trade union expertise was meticulously defined in the founding document of August 1980.[45] This document contained many references to expert knowledge, e.g. the 'necessity to conduct regular research on the employees' needs' or 'a right to real and public evaluation of key government decisions determining the living standard of working people'. Most importantly, the negotiators had agreed upon the creation of an independent trade unionist research centre dedicated to the issues labour and quality of life. The *Solidarność* experts also achieved that academic and trade union institutions would conduct regular research on living conditions based on the notion of a 'minimum standard of living' – a concept previously censured by the Communist officials. At last in 1980–81, poverty and the low quality of life could be openly discussed. Undoubtedly, the experts contributed to the redefinition of social policy in Communist Poland, this time in accordance with international norms regarding living standards.[46]

The new syndicalist consumerism took roots on every level of the trade union structures. It is difficult to list all of *Solidarność's* consumer-oriented institutions in which experts had their say or to analyse the courses of the various negotiations on provision, the rationing system and the economic crisis in which academic advisers represented the trade union side vis-à-vis

[45] To the group of experts negotiating the agreements on behalf of the shipyard workers belonged Tadeusz Mazowiecki, Bronisław Geremek, Bogdan Cywiński, Tadeusz Kowalik, Jadwiga Staniszkis, Waldemar Kuczyński and Andrzej Wielowiejski. Józef Pajestka, Antoni Rajkiewicz and Czesław Jachowiak negotiated for the government side. See: Porozumienia społeczne 1980–1981, p. 9-14.

[46] Lucyna Deniszczuk, Kilka uwag o historii i funkcjach minimum socjalnego, in: Polityka Społeczna 11-12 (2001), p. 5-6, p. 5; Andrzej Tymowski, Początki minimum socjalnego, in: Polityka Społeczna 11-12 (2001), p. 1-2, p. 1.

the government.[47] In 1981, when the shortage of basic consumer goods became a crucial social concern, a chain of Intervention Bureaus emerged as the most impressive institutional network of *Solidarność* consumerism. One of their tasks was to collect data about the waste or hidden storage of foodstuffs ('the conscious creation of shortages'), which would otherwise immediately be sold on the market.[48] Intervention Bureaus were also able to set up an alternative network of informants who would monitor country-wide deliveries and the unofficial export of basic consumer goods[49]: a network of dockers, railwaymen and customs officers who communicated through the Intervention Bureaus.[50]

Trade union consumerism had only one, but a very powerful weapon: the right to strike. This entitlement determined, in fact, whether the opposing side would take consumer rights, such as the right to information or the right to basic necessities, seriously. Moreover, members of *Solidarność* – nearly ten million people producing food in the agriculture sector, manufacturing goods in the state-run enterprises, transporting them to the retail units and finally selling them in the shops – could follow and observe the entire food chain from production site to shop counter.[51] And finally, as trade unionists, the members of *Solidarność* were entitled by civil law to inspect retail units independently from the regular state inspection. All in all, the number of consumer concerns and interventions addressed by the social movement turned out to be so vast that in May 1981 the *Solidarność* press agency created a separate column in its daily magazine under the title 'defence of consumers'.

While the *Federacja Konsumentów* looked to the International Organization of Consumer Unions and the UN agencies, the new trade union con-

[47] 'Karta' Center Archive, A/8B.7, Oświadczenia, uchwały, komunikaty i korespondencja Krajowej Komisji Porozumiewawczej NSZZ 'Solidarność', Posiedzenie KKP 28.10.1981 w Gdańsku. Uchwała 24/1981 w sprawie rządowego projektu reglamentacji żywności, p. 3.

[48] Uchwała V Krajowego Zjazdu Biur Interwencyjnych ws. żywności, in: AS, no. 19 (6-8 June 1981), p. 306.

[49] Walka ze spekulacją, in: AS, no. 28 (5-9 August 1981), p. 207; Spotkanie kolejarzy stacji granicznych, in: AS, no. 29 (10-12 August 1981), p. 207; O kontrolę nad handlem zagranicznym, in: AS, no. 37 (4-6 September 1981), p. 206.

[50] O kontrolę nad handlem zagranicznym, in: AS, no. 37 (4-6 September 1981), p. 206; Rozmowy Komisji ds. żywności przy KKP oraz Komisji Koordynacyjnej Pracowników Branży Portów Morskich z przedstawicielami Central Handlu Zagranicznego nt. eksportu żywności, in: AS, no. 35 (31 August–3 September 1981). For more on the *Solidarność* boycott of food exportation, see Żywność dla kraju, in: Serwis Komisji ds. Żywności przy KKP NSZZ 'Solidarność', no. 1 (September 1981), p. 2.

[51] For more on *Solidarność* control activities, see MAŁGORZATA MAZUREK, Społeczeństwo kolejki.

sumer movement developed predominantly in domestic milieus and became an equal and politically dangerous opponent for the party-state apparatus. However, the *Solidarność* experts were right to note that none of the food control actions undertaken by the syndicalists could improved the crisis mode of the Polish economy. Consumer rights thus constituted a temporary form of collective empowerment which in the short term served as an efficient remedy against the widespread sense of humiliation. The social appropriation of consumer rights, especially the right to control a distribution and retail system independently from state inspection (or concurrently with the party-state-conform trade unions), restored people's sense of dignity, subjectivity and participation in political life.[52] For all these reasons, the dissident experts supported the consumerist form of the political, despite their reservations towards the populist drive to tighten food controls and despite their belief that the main national task for the following months was the project of economic reform rather than the pro-consumerist assistance.[53]

6. *Solidarność* Experts and the Challenge of the Political in the 1980s

To navigate between the trade union structures and the dynamics of the social movement, to moderate the seething social rage and anger – these were the main challenges the *Solidarność* advisers were confronted with. Facing the slump, the experts referred to their knowledge about economic mechanisms, be it shortage economy theories developed in Eastern Europe in the 1970s[54] or current empirical data about the state of the Polish economy. On the one hand, they supported the consumer movement with their expertise and sympathized with the popular sense of exhaustion and humiliation that resulted from the ubiquitous shortages and never-ending queues. On the other, by virtue of their expert knowledge they struggled against rumours and conspiracy theories such as the alleged export of Polish ham to the Soviet Union.

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[52] ZBIGNIEW M. KOWALEWSKI, 'Solidarność' i walka o samorząd załogi, Łódź 1981, p. 48-49.

[53] 'Karta' Center Archive, A/8B.19, Apel do członków związku i całego społeczeństwa dotyczący podjęcia inicjatyw zmierzających do naprawy stanu gospodarki (12 August 1981), unpaginated.

[54] JANUSZ BEKSIAK, Społeczeństwo gospodarujące, Warszawa 1976; JAN LIPIŃSKI, Poglądy szkoły wakarowskiej a faktyczne funkcjonowanie 'realnego socjalizmu', in: Materiały na konferencję Szkoła wakarowska w polskiej ekonomii, ed. by Szkoła Główna Handlowa, Warszawa 1996.

Still, the experts had to keep a critical distance towards the statements and data provided by the party and government institutions. As a result, they entered into the equation as intermediaries who translated the concerns and failures of the government into the language of popular imagination. During the bilateral negotiations, in turn, they alerted party-state officials to the importance of emotions, such as a collective sense of humiliation, for the relations between state and society.

Hagemejer, for example, while describing the dramatic provisioning situation in his article 'Queueing Society', did not confirm popular beliefs about intentional party-state politics of humiliation towards the rebellious society. Rather, he looked for the sources of the crisis in 'the scandalous helplessness of the administration' and its 'striking incompetence in economic planning'.[55] His anti-populist attitude was courageous because most *Solidarność* members believed in the bad will of the party-state functionaries. In the popular imagination, queues symbolized a perverse form of intentional pacification or even a kind of punishment executed by the Communist regime over society.

The language of Catholic masses, celebrated on behalf of 'the starving Polish nation', may exemplify how distant expert intellectualism was from the rhetoric of popular unrest. In summer 1981, when numerous industrial enterprises went on strike against the government's provisioning and rationing policies, textile plants in Łódź were covered with posters entitled 'Our Pope, please do not let us die of hunger'.[56] The search for a common denominator between the expert discourse and the symbolic expression of the national-religious community constituted a real challenge for the dissident advisers. Although the expert language was critical towards the official Communist discourse and at the same time open to popular claim making, which Jadwiga Staniszkis has called 'political moralism' (as opposed to the political pragmatism dominating the adviser circles),[57] *Solidarność* activists perceived the experts as not sufficiently radical, politicized and moralistic.

All these tensions often focused on the *Solidarność* experts who negotiated consumer issues with the government and had to communicate the even more radical demands of the striking workers.[58] Shortly before the

[55] HAGEMEJER, Społeczeństwo w kolejce, p. 146-147.

[56] W sprawie zaopatrzenia Łodzi, in: AS, no. 25 (14-20 July 1981), p. 207.

[57] STANISZKIS, Poland's Self-Limiting Revolution, p. 140-144.

[58] Obrady Krajowej Komisji Porozumiewawczej 10.-12.08.1981, in: AS, no. 29 (10-12 August 1981), p. 104.

introduction of Martial Law,[59] during the last months of legal *Solidarność* activity (September–December 1981), a discord between the moderate attitudes of the experts and the popular movement, which did not want to follow the rationale of the self-limiting revolution anymore, increasingly became apparent. The diverging visions of the political, as well as growing conflicts within *Solidarność*, demonstrated the limits of the experts' attachment to popular political action. From the perspective of the following decade, this was an important experience for the dissident advisers.

In the second half of the 1980s, such promoters of syndicalist consumerism as Lesław Paga, who had introduced consumer issues into *Solidarność's* political programme, abandoned the project of a mass social movement and turned instead to the ideas of individual entrepreneurship and social resourcefulness.[60] There were good reasons for such a change. While the independent trade unions had to operate in conspiracy as a result of the Martial Law restrictions[61] and the party-state officials made fruitless efforts to revive the crippling economy, individual wit and creativity became a landmark of that transitory decade – the 1980s.[62] Self-help and grass-roots distribution of the Western packages sent to Poland by organizations and individuals from the other side of the Iron Curtain determined, to a great extent, the daily lives of Polish consumers. Lesław Paga saw in these activities another form of fledgling civil society, existing in complete separation from the party-state structures. Employing the American term of 'grass-roots reform', he believed that the rise of mutual aid associations and the development of small-scale private business would lead to a general change in politics and society. According to Paga, consumer self-help would not only constitute an adaptation to the economic crisis, it would also define the very origins of the new socio-economic system.

At the end of the 1980s, the view became more common – but was still quite disputed – among the dissident and non-dissident experts that civil society and democracy fit well with a liberal market economy. Or rather, this was still a very vague concept propagated by a few leading economists.

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[59] Martial law was introduced in Poland on 13 December 1981. From Solidarity to Martial Law. The Polish Crisis of 1980-1981, ed. by ANDRZEJ PACZKOWSKI/ MALCOLM BYRNE, Budapest 2007.

[60] LESŁAW A. PAGA, Consumer Mutual Aid. Adaptation or Challenge? in: Urbanization and Values, ed. by JOHN KROMKOWSKI/ GEORGE F. MCLEAN, Washington, D. C. 1991.

[61] *Solidarność* regained its legal status only in 1989. See: Polska 1986-1989. Koniec systemu. Referaty, ed. by PAWEŁ MACHCEWICZ, vol. 1, Warszawa 2002; ANDRZEJ PACZKOWSKI, The Spring Will Be Ours. Poland and the Poles from Occupation to Freedom, University Park 2003.

[62] JANINE R. WEDEL, Private Poland, New York 1986; The Unplanned Society. Poland During and After Communism, ed. by JANINE R. WEDEL, New York 1992.

And yet, it was precisely at this time that the experts came to the forefront and organized an influential milieu under the auspices of Lech Wałęsa. More concretely, while *Solidarność* was kept illegal by the Jaruzelski regime, the future economic and political reforms were heatedly discussed in the isolated circles of the intellectual elite such as the Lech Wałęsa Citizens Committee, in which several dozens of dissident academics were organized.[63] Paradoxically, in the conspiracy period of *Solidarność*, the more its advisers stressed the issue of civil society and the concerns of everyday consumers, the less, in fact, they were able to communicate with the rank-and-file members of the trade union. Between 1986 and 1988, as the dissident expert groups rebuilt a well-functioning nationwide network, its social basis narrowed to the members of intelligentsia.

As some of the advisers noticed self-critically at the end of the 1980s, their debates on politics, economy and society represented voices of expert consumers, but hardly referred to 'what society actually thought'.[64] They stressed Poland's position 'between East and West' as well as the 'energy, creativity and resourcefulness of the Poles' that should 'translate into a new understanding of state and economic organization'[65] that would replace the fading political system. However, during this crucial moment, everyday consumer concerns did not matter as much as in 1980-81 because the experts already shifted their attention to more general divagations on the future economic regime.

The Round Table talks in early 1989, led by *Solidarność* and party-state experts and politicians[66] – a political symbol of the peaceful demise of the Communism – decided on the fundamental economic issues, including the protection of consumers against inflation and unemployment.[67] However, the language of consumerism propagated by the FK and some of the dissident economists in the 1980s no longer shaped the main economic ideas of the Round Table. It was not a debate about economic rights, but rather an expert discussion about the ways in which a 'social market economy' was

[63] ANDRZEJ FRISZKE, Komitet Obywatelski. Geneza i historia, in: Komitet Obywatelski przy Przewodniczącym NSZZ 'Solidarność' Lechu Wałęsie. Stenogramy z posiedzeń 7 listopada 1987, 18 grudnia 1988 i 23 kwietnia 1989, prep. by MAŁGORZATA STRASZ, Warszawa 2006, p. 5-69.

[64] Ibid., p. 42.

[65] Ibid., p. 14.

[66] The experts of *Federacja Konsumentów* sat on the party-state side.

[67] ANDRZEJ FRISZKE, Okrągły stół. Geneza i przebieg, in: Polska 1986-1989, p. 74-117; ANDRZEJ GARLICKI, Karuzela. Rzecz o Okrągłym Stole, Warszawa 2003; WŁADYSŁAW BAKA, U źródeł wielkiej transformacji, Warszawa 1999. WŁADYSŁAW BAKA, W tyglu transformacji ustrojowej. Szkice i komentarze, Warszawa 2004, p. 13-16.

to be introduced. Therefore, the last Communist[68] as well as the first non-Communist government[69] was to a great extent composed of publicly unknown experts who focused on the very notion of pro-market reforms. While human rights talk became a political language of the 1989 transition in Eastern Europe,[70] Polish experts abandoned the rhetoric of consumer entitlement in favour of the much more radical idea of 'shock therapy', which revoked both the original *Solidarność* pro-consumer agenda and the resolutions of the Round Table that were officially announced only a few months earlier. The pro-human rights and pro-market discourses appeared to the majority of economic experts as two coherent and intertwined intellectual projects. At the beginning of the 1990s, the concepts of economic liberalization (or deregulation, to use the modern term) and consumer rights went hand in hand. Actually, very few of the former leaders of the democratic opposition or FK activists perceived this shift as a 'crisis of *Solidarność* identity' or as a symptom of the 'chasm between the trade union's elite and its rank-and-file members', as the eminent oppositionist Karol Modzelewski indicated bitterly in his writings in the early 1990s.[71]

7. Conclusion

In sum, in 1989 and shortly afterwards, for the experts of both the democratic opposition and party-state circles, including *Federacja Konsumentów*, the connection between pro-market reforms and the creation of civil society (the latter would then automatically represent the consumers' point of view) eventually turned into a public confession of faith.[72] The fact that the working class, as a consequence of the post-1989 transformation, got

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[68] The last Communist government (from September 1988 to August 1989) was headed by Mieczysław Rakowski, the liberal and pragmatist within the party elite. MIECZYSŁAW F. RAKOWSKI, Es begann in Polen. Der Anfang vom Ende des Ostblocks, Hamburg 1995; MIECZYSŁAW F. RAKOWSKI, Jak to się stało, Warszawa 1991.

[69] The first non-Communist government, with Tadeusz Mazowiecki serving as prime minister, was nominated in August 1989. CLAUDIA KUNDUGRABER, Polens Weg in die Demokratie. Der Runde Tisch und der unerwartete Machtwechsel, Göttingen 1997.

[70] DANIEL C. THOMAS, The Helsinki Effect. International Norms, Human Rights, and the Demise of Communism, Princeton 2001; Ku zwycięstwu 'Solidarności'. Korespondencja Ambasady USA w Warszawie z Departamentem Stanu, styczeń-wrzesień 1989, ed. by GREGORY F. DOMBER et al., Warszawa 2006.

[71] KAROL MODZELEWSKI, Dokąd od komunizmu?, Warszawa 1993.

[72] Spór o Polskę. Wybór tekstów prasowych, ed. by PAWEŁ ŚPIEWAK, Warszawa 2000; JERZY SZACKI, Liberalizm po komunizmie, Kraków 2004, ANDRZEJ KOŹMIŃSKI/ PIOTR SZTOMPKA, Rozmowy o wielkiej przemianie, Warszawa 2004.

excluded from the fruits of affluence was perceived and represented as 'the necessary cost of the systems transition'.[73] This may explain why the early 1980s consumer movement, based on the trade unionist structures and referring to the spirit of collective, syndicalist action, was not revived at the end of the decade.

Why did consumer rights get depoliticized so fast in the beginning of the 1990s? My thesis is that the *Solidarność* advisers who turned into government officials or became captains of economic liberalism, like Lesław Paga, the president of the first stock exchange in Eastern Europe after the fall of Communism, had always treated consumer protection as a temporary issue. And they imagined that once the planned economy came to an end, all consumer nightmares would simply disappear of their own accord.

In the 1990s, formerly dissident experts did not stress consumer rights as part of the politically and symbolically powerful set of human rights. They preferred to equate consumer issues with the questions of choice, full shop shelves and material abundance, but not necessarily with the questions of living standards, purchasing power, poverty and access to material and cultural goods. However, one cannot regard the shift of the consumerism agenda towards the satisfaction of the individual consumer as an Eastern European particularity. All around the globe, as Matthew Hilton has observed, consumer movements felt the pressure of global neo-liberalism, which came to fruition through the proliferation of multi-national companies and the crisis of the United Nations idea of development.[74] In Poland as well as in other European economies after 1989, the challenge of the political in the sphere of consumption focused on the issues of deregulation, privatization of the economy and the legal protection of individual consumers (the latter strongly supported by the European Union): Regulatory, collective and state-interventionist institutions were labelled as ideologically bankrupt. For the FK, this meant the triumph of the consumerist agenda as a consensual, non-political activity within the domestic NGO sector and the responsible UN or EU agencies. The formerly dissident experts pursued a similar path: They removed collective action from the political repertoire of post-1989 consumerism.

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[73] LESZEK BALCEROWICZ, Socialism, Capitalism, Transformation, Budapest 1995; DAVID OST, The Defeat of Solidarity. Anger and Politics in Postcommunist Europe, Ithaca 2005.

[74] HILTON, Prosperity for All, p. 223-227.

Appendix

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List of Abbreviations

A-4	Technical name of V-2 Aggregat 4
AAN	Archives of New Records, Warsaw [Archiwum Akt Nowych, Warszawa]
AEG	General Electricity Company [Allgemeine Elektricitäts-Gesellschaft]
ÁGTI	General Machinery Design Office [Általános Géptervező Iroda]
AKRČ	Automobile Club of the Czechoslovak Republic [Auto klub Republiky Československé]
AMI	International Association of Freemasons [Association Maçonnique Internationale]
APP	State Archives, Poznań [Archiwum Państwowe w Poznaniu]
ARAN	Archive of the Russian Academy of Sciences [Arkhiv Rossiiskoi Akademii Nauk]
AS	Solidarity Press Agency [Agencja Prasowa Solidarność]
AŠA	Škoda Auto Historical Archives [Archiv společnosti Škoda Auto]
AVČR	Academy of Sciences of the Czech Republic [Akademie Věd České Republiky]
AVP RF	Archive of Foreign Policy of the Russian Federation [Arkhiv Vneshnei Politiki Rossiiskoi Federatsii]
AZNP	Automobile Factories, National Enterprise [Automobilové Závody, Národní Podnik]
BAK	Federal Archives Koblenz [Bundesarchiv Koblenz]
BBWR	Nonpartisan Bloc for Cooperation with the Government [Bezpartyjny Blok Współpracy z Rządem]
BGK	Baltic Geodesic Commission [Baltische Geodätische Kommission]
BND	Federal Intelligence Service [Bundesnachrichtendienst]
CC	Central Committee
CIA	Central Intelligence Agency
CIOS	World Organization of Management Experts [Congrès International de l'Organisation Scientifique]
ČMT	Czech Technical Foundation [Česká matice technická]
CoCom	Coordinating Committee on Multilateral Export Controls
COMECON	Council for Mutual Economic Assistance
COP	Central Industrial Region [Centralny Okręg Przemysłowy]
CPSU	Communist Party of the Soviet Union [Kommunisticheskaia partiia Sovetskogo Soiuza]
cs.	group [csoport]
ČVUT	Czech Technical University in Prague [České Vysoké Učení Technické v Praze]

ČZKS	Czechoslovak Engineering and Steel Factories [Československé Závody Kovodělné a Strojírenské]
d.	file [delo]
DVT	History of Science and Technique [Dějiny vědy a techniky]
ELTE	Eötvös Loránd University [Eötvös Loránd Tudományegyetem, Budapest]
EU	European Union
f.	Collection [fond]
FBI	Federal Bureau of Investigation
FEA	Foreign Economic Administration
Fiat	Italian Automobile Factory of Turin [Fabbrica Italiana Automobili Torino]
FK	Federation of Consumers [Federacja Konsumentów]
FMA	Foreign Ministry Archive, Finland [Ulkoministeriön arkisto]
GARF	State Archive of the Russian Federation [Gosudarstvennyi Arkhiv Rossiiskoi Federatsii]
GDR	German Democratic Republic
Gestapo	Secret State Police [Geheime Staatspolizei]
GKNT	State Committee for Science and Technology [Gosudarstvennyi Komitet Nauki i Tekhnologii]
GNTK	State Scientific-technological Committee [Gosudarstvennyi Nauchno-Tekhnicheskii Komitet]
GOSPLAN	State Planning Committee of the Communist Russian Government [Gosudarstvennyi Komitet Planirovaniia]
GOST	state standard [gosudarstvennyi standart]
Gostekhnika	State Committee for the Introduction of New Technology in the National Economy [Gosudarstvennyi Komitet Soveta Ministrov SSSR po vnedreniiu peredovoi tekhniki v narodnoe khoziaistvo]
GStA PK	Secret State Archives of the Prussian Cultural Heritage [Geheimes Staatsarchiv Preußischer Kulturbesitz, Berlin]
Gulag	Chief Administration of Corrective Labor Camps and Colonies [Glavnoe Upravlenie Lagerei]
GUS	Central Statistical Office of Poland [Główny Urząd Statystyczny]
HL	War History Archives [Hadtörténelmi Levéltár, Budapest]
HM	Ministry of Defence [édelmi Minisztérium]
IAU	International Astronomical Union
IEC	International Electrotechnical Commission
IHW	Institute of Internal Trade [Instytut Handel Wewnętrznego]
ILO	International Labour Office
IOCU	International Organization of Consumer Unions
IRC	International Research Council
IUGG	International Union of Geodesy and Geophysics
IUPAC	International Union of Pure and Applied Chemistry
KGB	Committee for State Security [Komitet Gosudarstvennoi Bezopasnosti]
KGM	Ministry of Metallurgy and Machine-building Industry [Kohó- és Gépipari Minisztérium]
MAP	Masaryk Academy of Work [Masarykova Akademie Práce]

MAP	Ministry of Aircraft Industry [Ministerstvo Aviatsionnoi Promyshlennosti]
MDP KV	Secretariat of the Central Committee of the Hungarian Workers' Party [Magyar Dolgozók Pártja Központi Vezetőség]
MGB	Ministry of State Security [Ministerstvo Gosudarstvennoi Bezopasnosti]
MID	Minister of Foreign Affairs [Ministr inostrannykh del RF]
MKhP	Ministry of Chemical Industry [Ministerstvo Khimicheskoi Promyshlennosti]
MN	Hungarian People's Army [Magyar Néphadsereg]
MOL	Hungarian National Archive [Országos Levéltár]
MPSS	Ministry of the Industry of Means of Communication [Ministerstvo promyshlennosti sredstv sviazi SSSR]
MSZMP	Hungarian Socialist Workers' Party [Magyar Szocialista Munkáspárt]
MVD	Ministry of Internal Affairs [Ministerstvo Vnutrennykh Del]
NATO	North Atlantic Treaty Organization
NGO	Non-Governmental Organization
NII	Scientific Research Institute [Nauchno-Issledovatel'skii Institut]
NKVD	People's Commissariat for Internal Affairs [Narodny Kommisariat Vnutrennikh Del]
NS	National Socialism [Nationalsozialismus; nationalsozialistisch]
NSDAP	National Socialist German Workers Party [Nationalsozialistische Deutsche Arbeiterpartei]
OBS	Centre for Social Research [Ośrodek Badań Społecznych]
ő. e.	safe-keeping unit [őrzési egység]
OEM	Office for Emergency Management of the Executive Office of the President
ÖIAV	Society of Austrian Engineers and Architects [Österreichischer Ingenieur- und Architekten-Verein]
op.	inventory [opis']
OPM	Office of Production Management – section of the OEM
OREC	Office for Economic Recovery [Office de Redressement Économique]
PA AA	Political Archives of the German Foreign Office [Politisches Archiv des Auswärtigen Amts, Berlin]
PIMCO	Prague International Management Congress, July 20th–30th 1924
R&D	Research and development
RGAĖ	Russian State Archive of the Economy [Rossiiskii Gosudarstvennyi Arkhiv Ėkonomiki]
RGANI	Russian State Archive of Contemporary History [Rossiiskii Gosudarstvennyi Arkhiv Noveishei Istorii]
RGANTD	Russian State Archive on Scientific-Technical Documentation, Samara Branch [Rossiiskii Gosudarstvennyi Arkhiv Nauchno-Tekhnicheskoi Dokumentatsii, filial v g. Samare]
RGASPI	Russian State Archive for Social-Political History [Rossiiskii Gosudarstvennyi Arkhiv Sotsial'no-Politicheskoi istorii]

SAPMO	Foundation Archives of Parties and Mass Organizations of the GDR in the Federal Archives [Stiftung Archiv Parteien und Massenorganisationen der DDR im Bundesarchiv, Berlin]
SED	Socialist Unity Party of Germany [Sozialistische Einheitspartei Deutschlands]
SIA	Society of Engineers and Architects in the Bohemian Crown Lands [Spolek inženýrů a architektů v království Českem]
SOZ	Soviet Zone of Occupation
SS	Protection Squadron [Schutz-Staffel]
STR	Scientific-Technical Revolution
TÁKI	Telecommunications Research Institute [Távközlési Kutatóintézet]
U.K.	United Kingdom
UN	United Nations
USD	United States dollar
U.S.S.R.	Union of Soviet Socialist Republics
V-2	"vengeance weapon 2" [Vergeltungswaffe 2]
VINITI	All-Union Institute for Scientific-Technical Information [Vsesoiuznyi Institut Nauchnoi i Tekhnicheskoi Informatsii]
VCSPS	All-Union Central Council of the Trade Union [Vsesoiuznyi Tsentral'nyi Sovet Professional'nykh Soiuzov]
WIB	War Industries Board
WLN	Great National Lodge of Poland [Wielka Loża Narodowa Polski]

Persons Index