QUALITY OVER QUANTITY: EXPERT KNOWLEDGE AND THE POLITICS OF FOOD IN PRAGUE, 1914-1918

By Vojtěch Pojar

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Supervisor: Professor Karl Hall Second Reader: Professor Balázs Trencsényi

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Abstract

In this thesis, I analyze the interaction between expert knowledge and the biopolitics of urban political elites in the Bohemian Lands during the First World War. More specifically, focusing on the crucial issue of provisioning of cities in the context of an increasing food shortage, I examine the impact of the heated debates in agricultural science, physiology, and eugenics on the way how the urban political elites and other local actors conceptualized their practices concerning the supplying with food of the largest urban agglomeration in the Bohemian Lands, Prague. At the same time, I illuminate how the rising challenges of food politics reshaped the scientific debates.

Thus, linking urban history and history of science, and drawing on a wide range of scientific periodicals, popular science pamphlets, general magazines and archival documents produced by Prague's political elites, this thesis aims to revisit both the interpretations of municipal authorities' policies during the war and of the development of scientific disciplines that informed them. Arguing against the received view which stresses the exclusive influence of the central state authorities in shaping of the food politics in Bohemian cities, the main contention of this thesis is that the provisioning of urban areas was a result of a complex negotiation between a wide variety of agents, operating not only at the imperial, but also at the local level. Furthermore, I argue that the policies of these diverse agents were informed by competing, and often conflicting expert knowledge. Conversely, moreover, relating the development of agricultural science, physiology, and eugenics to the urban context, I suggest a different reading of the history of these scientific fields that stresses discontinuities, rather than continuities of their development during the war. All in all, I argue that in the truncated public sphere in Bohemia during the war the experts emerged as major actors intervening in and shaping the public debates.

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1. Introduction: Enter the Experts Scientific Knowledge and Urban Politics in Wartime Prague

"Science [in the broad sense of the German term Wissenschaft] has achieved its current perfection and power through specialization, and we must carry on with it. However, it is human nature not only to pine for discovering particular aspects of the world, but also to long for understanding the world and life as a whole. We have thus always desired to gain – apart from specialized knowledge – general knowledge and philosophy, as well."¹

With these words, which were part of a lecture delivered at a country-wide conference of Czechoslovak university teachers held in 1922, the sociologist-turned-president T. G. Masaryk engaged with the role of science in the public sphere, a hotly debated topic in post-World War I Czechoslovakia. Echoing the widespread unease about the ongoing specialization, Masaryk attempted to rescue the form of knowledge that provided a comprehensive representation of the world and thus helped people to actively address modern-day problems. Yet, his aim was not to push back against the drive toward specialism, which he held to be a vital precondition of an efficient knowledge production. Instead, Masaryk's main intention was to show that these were not two opposing forms of doing science, but actually its two separate functions. Consequently, the "specialist" function should not replace, but should rather run parallel to the more traditional "generalist" function. In this thesis, I explain why Masaryk and other speakers at the conference placed particular emphasis on scientists' role in the public sphere and illuminate how this to a large extent reflected the recent experience of World War I.

Apart from denoting the functions that, in Masaryk's view, science was supposed to fulfill in a democratic society, these notions also implied two social roles of a scientist, or more precisely, two different modes of intervention in the public sphere. Accordingly, while the specialist scientist could participate in public debates as - to use the recent terminology coined

¹ "Proslov p. presidenta republiky T. G. Masaryka [The Speech Delivered by the President T. G. Masaryk]," in *Věstník prvního říšského sjezdu československých učitelů vysokých škol* [Bulletin of the First Country-wide Conference of Czechoslovak University Teachers], ed. Antonín Beer and František Kadeřávek (Prague: Ed. Grégr, 1922), 60-1.

by sociologists Gil Eyal and Larissa Buchholz - a "specific" expert, generalist science and its protagonists were expected to play a public role not dissimilar to engaged men of letters, the "universal" intellectuals.² These intellectuals, who according to Christophe Charle emerged as a social group in the last years of the 19th century and of whom Masaryk was a paradigmatic representative, found it increasingly difficult to participate in debates that unfolded in the wartime Bohemian Lands.³ Their access to the public sphere was often restricted. Even though there has been so far very little research on wartime censorship practices in Bohemia, it is clear that especially until 1917, when it was alleviated, its strictness counted among the chief obstacles that prevented the intellectuals from making their voices heard.⁴ Conversely, I argue here that the experts whose scientific authority legitimized their interventions in the public sphere were given more elbow-room while making their claims. Expert debates thus became a significant locus where actors could justifiably discuss political questions and in some cases, voice their discontent. Consequently, the public power and symbolic prestige of experts in Bohemia grew substantially during the First World War.

For this reason, experts play one of the key roles in this thesis, which analyzes the interaction between scientific knowledge and political power in the urban setting during World War I. It does so through a case study of expert debates in the Bohemian Lands and their impact on the politics of food among Prague's urban political elites. The choice of this understudied subject is justified by the fact that food politics became one of the crucial areas of Prague politicians' activity after the outbreak of the First World War. As food turned into a scarce good in the Habsburg Empire and cities in the region began to suffer from food shortages, food

² Larissa Buchholz and Gil Eyal, "From the Sociology of Intellectuals to the Sociology of Interventions," *Annual Review of Sociology* 36 (no. 1; August 2010): 117-37.

³ For Charle's historical argument about the emergence of intellectuals, see Christophe Charle, *Birth of the Intellectuals: 1880-1900*, (Cambridge: Polity, [2015]).

⁴ Milan Hlavačka, Sixtus Bolom and Patrik Šimon, V zákopech mysli: život, víra a umění na prahu velké války [In the Trenches of the Mind: Life, Faith and Art at the Beginning of the Great War], (Praha: Historický ústav, 2014).

politics emerged as one of the vital factors shaping everyday life in the urban areas. The government soon attempted to counter the danger of scarcity by setting up centralized distribution and rationing of foodstuffs. Nevertheless, during the war, food shortages became increasingly common and eventually triggered the dissolution of social consensus in cities. They provoked food riots, organized protests, and even revolutionary actions in many urban areas. A significant part of the scholarship debating the demise of the Habsburg Empire argues that it was to a large extent a consequence of the failure of state-led rationing in the last years of the war.⁵ This line of argument suggests that food politics should play a key role in the histories that aspire to understand the experience of actors who spent the war on the "home front."

Yet, in stark contrast with the broad interest in the groups who had political power and in the way their policies shaped the structures of everyday life in Czech towns and cities in the decades preceding World War I, history of local politics in wartime Bohemia has been so far a less common topic of historical research.⁶ In existing Czech scholarship on this issue, the main emphasis is on the actions of the Empire's central and provincial authorities. Even though cities enjoyed a significant degree of autonomy before 1914 that was not fully curtailed during the war, this scholarship deals predominantly with how, through creating a legal framework and promoting certain policies, the imperial authorities conditioned the actions at the local level.⁷

⁵ For an overview of the debate, see Rudolf Kučera, *Rationed Life. Science, Everyday Life, and Working-Class Politics in the Bohemian Lands, 1914–1918* (New York – Oxford: Berghahn, 2016), 50.

⁶ Significantly, most scholars who contributed to the rich debate on urban elites in the Bohemian Lands did not cover the First World War, ending their narratives just before the declaration of war. This decision is, however, paradoxical. Since no elections took place during the war, there is a strong continuity of urban political elites until 1918. See e.g. Lukáš Fasora, *Svobodný občan ve svobodné obci? Občanské elity a obecní samospráva města Brna 1851-1914* [Free Citizen in a Free Community? Civic Elites and Urban Administration in Brünn, 1851-1914] (Brno: Matice Moravská, 2007); Milan Hlavačka, *Zlatý věk české samosprávy 1862–1913* [The Golden Age of Czech Self-Government. Self-Government and its Influence on Economic, Social and Intellectual Development in Bohemia, 1862-1913] (Prague: Libri 2006).

⁷ See e.g. Kučera, Rationed Life, 19-20; Pavel Scheufler, "Zásobování potravinami v Praze v letech 1. světové války" [Provisioning of Prague with Food during the First World War]," Etnografie dělnictva 9 (1977): 143- 197; Jiří Štěpek, Sto let přídělových systémů na území bývalého Československa 1915-2015 [A Century of Rationing

Focusing on food politics, this thesis attempts to challenge this interpretation by arguing that apart from central state institutions, scholars should also examine local agents. The urban elected representatives acquired and redistributed food on the spot and thus played the decisive role in provisioning urban populace. Their policies, in turn, were guided by local experts. Thus, the central argument of this thesis is that the politics of food was, in fact, negotiated by a wide variety of agents, some operating at the imperial level, some at the local level, some possessing expert status, some lacking it.

Finally, by studying the interventions in the public sphere of experts located in diverse scientific fields and by linking them with food politics at the urban level, this thesis strives to shed light on the wartime history of Czech science. Engaging with the question, how did scientific knowledge interact with its local context, this research thus follows Sven Dierig, Jens Lachmund and Andrew J. Mendelsohn, who suggest that scholars should appreciate the importance of cities as a crucial setting for the history of science. Not only should historians analyze the creative contribution of the urban context to forming the practices of scientists and the knowledge these actors produce, but also, conversely, they should explore how science constructed and represented the cities.⁸ More specifically, in examining how science and the city both shaped and were part of identical historical developments, this thesis strives to address three major questions raised by these authors.⁹

Firstly, this thesis seeks to uncover the ways how scientists were involved in managing and making of the city by providing scientific concepts that enabled the political actors to think about the urban environment and recognize its problems. The authors remind us, however, that this was not a one-way relationship: "Urban policies and administrative procedures often

in the Territory of Former Czechoslovakia, 1915-2015] (Praha: Národohospodářský ústav Josefa Hlávky, 2014-2015), 15-65.

⁸ Sven Dierig, Jens Lachmund and Andrew J. Mendelsohn, "Introduction: Toward an Urban History of Science," *Osiris* 18: *Science and the City* (2003): 1-19.

⁹ Dierig, Lachmund and Mendelsohn, "Introduction," 3.

shaped the production of knowledge in these fields of urban expertise."¹⁰ Secondly, this research tracks the representations of the city produced by experts. The images not only form the way how the inhabitants of cities conceive of the urban context that surrounds them, but also guide and provide justification for policies and planning of the local authorities.¹¹ In his study on the history of images of Paris in 19th century urban atlases, Antoine Picon convincingly demonstrates that the scientific representations of the city can be fruitfully interpreted by examining the local institutional context in which they emerged and their underlying agendas related to urban politics.¹²

Thirdly, using scientific popularization as an example, this thesis examines the interaction between scientific subcultures and the urban public. Contrary to the "dominant view" of science popularization, it is assumed here that the audience is far from passive. Instead, the consumers of public science are able to destabilize the presented knowledge and, in the words of Peter Bowler, "to control what is recognized as science."¹³ Furthermore, following Jonathan Topham, the boundary between science and popularization is not viewed as fixed, but as an object that is being constantly renegotiated by the actors involved.¹⁴ These three questions are not addressed in separate chapters of this thesis; instead, the three chronologically structured chapters offer different perspectives on each of them.

In particular, in this thesis I analyze the debates that took place during the war in three scientific fields - agricultural science, physiology, and eugenics. Even though I am aware that some of these disciplines were still in the making at the time of the war (and the boundaries between them were thus still malleable), I argue that the debates in and interventions in the

¹⁰ Dierig, Lachmund and Mendelsohn, "Introduction," 8.

¹¹ Dierig, Lachmund and Mendelsohn, "Introduction," 11.

¹² Antoine Picon, "Urban Cartography and the Scientific Ideal: The Case of Paris," Osiris 18 (2003): 135-149.

¹³ Peter Bowler, "Popular Science," in *The Cambridge History of Science*, ed. Peter J. Bowler and John V.

Pickstone (Cambridge: Cambridge University Press, 2009): 622-3.

¹⁴ Jonathan Topham, "Introduction: Historicizing Popular Science," *Isis* 100 (2009): 310-18.

public sphere by scientists of these disciplines played the key role in shaping of how food provisioning was conceptualized, carried out and viewed by the actors. The thesis traces the interventions of experts into the public debates during the war, discussing (among others) the relevant work of individuals such as the agricultural economist Karel Viškovský, physiologists Edvard Babák, František Mareš, and Julius Stoklasa, the neuropsychiatrist (and one of the founders of Czech eugenics) Ladislav Haškovec, the biologists (and all prominent eugenicists) Vladislav Růžička, Jaroslav Kříženecký and the public health official František Prokop Procházka.¹⁵ By locating these scientific debates in their urban setting, this research thus presents the first attempt at writing an urban history of science in the Bohemian lands at the time of the First World War.

1.1 Literature Review

Experts have emerged as major but ambiguous actors in a burgeoning part of recent historical scholarship, which thus followed the lead of other social sciences. The body of literature on the modern history of the Bohemian Lands/Czechoslovakia is no longer an exception. This discussion, together with debates on the role of urban elites in Bohemia and on the history of the three sciences mentioned above, is a context where this thesis positions itself and to which I try to contribute. Concentrating on periods of regime changes in the 20th century, scholars have addressed the questions of continuity and change of expert knowledge and practices of experts operating in consecutive, yet radically different political frameworks. For instance, in his study of hydraulic engineers and their periodically frustrated efforts to carry out their various blueprints of a Danube-Oder-Elbe Canal in the contexts of interwar liberal democracy, Nazi occupation and state-socialism, Jiří Janáč concluded that "the continuity of European waterway integration across various political ruptures (...) was secured by experts

¹⁵ Short biographies of the main actors of my story can be found in the following chapters, always introducing the work of the particular scientist.

devoted to the concept of the canal."¹⁶ Furthermore, in the case of the change from late socialism to post-socialism the research on social sciences by Michal Kopeček also suggests that the continuity was at least as important as the rupture.¹⁷

Unlike these historical breaks that are already receiving broad scholarly attention, relatively little has been written on continuities and changes of the roles of experts that were brought about by the war and the dissolution of the Habsburg Empire, the first major rupture in the 20th century history of the Bohemian Lands. Elisabeth van Meer has in her essays analyzed the engineering profession both in Habsburg context of the Bohemian Lands in the broadly defined period of 1800-1914, and in Czechoslovakia from 1918 to 1948. Consequently, war presents a surprising hiatus in her research.¹⁸ Conversely, in his recent study which will be discussed below in more detail, Rudolf Kučera examines the impact of expert knowledge during the war, arguing for a continuity of the prewar scientific discourse.¹⁹ Significantly, although the title indicates otherwise, Kučera's narrative basically ends in 1916, which prevents him from showing whether a reconfiguration of these expert discourses took place in the context of the failing rationing system and the widespread food shortage. I argue that in both cases, this choice of periodization is by no means accidental and that it is based on the assumption that a significant rupture took place in the discourse and practices of experts during the war, particularly in its later stages. Such an assumption is indeed reinforced by the results of the research carried out in other Central European contexts.²⁰ In this thesis, I will try to provide

¹⁶ Jiří Janáč, *European Coasts of Bohemia. Negotiating the Danube-Oder-Elbe Canal in a Troubled Twentieth* Century (Amsterdam: Amsterdam University Press, 2012), 273.

 ¹⁷ Michal Kopeček, "From Scientific Social Management to Neoliberal Governmentality? Czechoslovak Sociology and Social Research on the Way from Authoritarianism to Liberal Democracy," *Stan Rzeczy*, forthcoming.
 ¹⁸ Elisabeth van Meer, "The Nation is Technological:' Technical Expertise and National Competition in the Bohemian Lands, 1800-1914," in *Expert Cultures in Central Eastern Europe. The Internationalization of Knowledge and the Transformation of Nation States since World War I*, ed. Martin Kohlraush, Stefan Wiederkehr, and Katrin Steffen (Osnabrück: fibre, 2010), 85-104.; Elisabeth van Meer, "The Transatlantic Pursuit of a World Engineering Federation: For the Profession, the Nation, and International Peace." *Technology and Culture* 53, no. 1 (January, 2012): 120-145.

¹⁹ Kučera, *Rationed Life*, 25.

²⁰ Kohlraush, Wiederkehr, and Steffen, *Expert Cultures*, 15-19.

empirical basis for this assumption by analyzing the changing roles of experts in agricultural science, physiology, and eugenics in the wartime Bohemian Lands. Apart from arguing that their influence in the public sphere grew substantially during the war, I will illuminate the two main trajectories these newly empowered actors took at the time of the Empire's demise.

As already mentioned above, Kučera's book Rationed Life. Science, Everyday Life, and Working-Class Politics in the Bohemian Lands, 1914–1918, embodies a crucial contribution to understanding the expert cultures in wartime Bohemia and this thesis is often in dialogue with it. Engaging with the scholarship on the everyday life experience in Central Europe during the First World War²¹, Kučera convincingly argues that the focus needs to be shifted toward the expert discourses which shaped the subjects and determined the potential range of their experience. Most relevant for my argument, he suggests that the "natural science discourse" produced above all by nutritional science played the key role in guiding and legitimizing the state-run rationing system. Significantly, he assumes that this discourse was monolithic and determined the actions both of actors at the central and local levels.²² I argue here that Kučera not only underestimated the degree of internal disagreement in the discipline of physiology (or more specifically, in the emerging nutritional science), but also neglected other groups of experts such as agricultural scientists and physiologists who participated in the wartime debates about food. Furthermore, my contention in the following chapters is that the internal tensions in each of these scientific fields translated during the war into one paradigm guiding the policies of the central authorities, and another competing paradigm informing the local actors.²³

²¹ Roger Chickering, *The Great War and Urban Life in Germany: Freiburg, 1914-1918,* (Cambridge: Cambridge University Press, 2007); Belinda Davis, *Home Fires Burning. Food, Politics, and Everyday Life in World War I Berlin* (Chapel Hill - London: The University of North Carolina Press, 2000); Maureen Healy, *Vienna and the Fall of the Habsburg Empire: Total War and Everyday Life in World War I* (Cambridge: Cambridge University Press, 2004).

²² Kučera, Rationed Life, 12-49.

²³ Eugenics was, obviously, a partial exception. While neo-Lamarckian eugenics found acclaim among the local actors, the competing (Mendelian) eugenics neither sought nor found support of the imperial authorities.

Consequently, given the degree of autonomy of the local political bodies on the state it is worthwhile to study their policies in detail. Yet, it is paradoxical that despite of their relative independence, the urban political elites who remained, moreover, during the war the only political representatives of voters in Bohemia, and whose power was not fully abolished at the beginning of the war, have not – as I already observed above – attracted more scholarly attention.²⁴ In this thesis, I argue that expert knowledge and the challenges posed by the expectation, and later, the reality of increasing food shortage triggered substantial changes in their policies.

While most studies on urban history of wartime Bohemia do not link it with expert knowledge, histories of science in the Bohemian Lands do not situate the development of these bodies of knowledge during the war in broader contexts. Consequently, there is a significant discrepancy between Czech research and recent English-language debates on the history of relevant disciplines such as eugenics during the First World War and between the Czech research. The latter body of literature highlights the ramifications of the expert debates in the respective contexts (see, for instance, the studies of Paul Weindling or Marius Turda).²⁵ On the other hand, the recent studies by Michal Šimůnek and Alena Šubrtová have approached the topic using the more traditional history of ideas, reflecting neither the context of larger debates that echoed the changing horizons of expectations and the radicalizing nationalism in the area, nor linking them with politics.²⁶ Significantly, apart from neglecting the cultural, social and

²⁴ For the major studies on the municipal politics in Prague during the war and studies with particularly emphasis on the politics of food, see Scheufler, "Zásobování potravinami;" Barbora Lašťovková, "Zásobování Prahy za první světové války [Provisioning of Prague during the First World War]," in *Mezi liberalismem a totalitou. Komunální politika ve středoevropských zemích 1848-1918* [Between Liberalism and Totalitarianism. Urban Politics in Central European Countries, 1848-1918], ed. Jiří Pešek and Václav Ledvinka (Prague: Scriptorium, 1997), 111-117; Jaroslav Láník et al., *Dějiny Prahy. Sv. 2. Od sloučení pražských měst v roce 1784 do současnosti* [The History of Prague. From the Unification in 1784 to the Present], (Prague: Paseka, 1998), 263-

^{277;} Václav Ledvinka and Jiří Pešek, *Praha* [Prague] (Prague: NLN, 2000), 549-558.

²⁵ For a list of recent publications, see Marius Turda, ed., *East Central European Eugenics 1900-1945. Sources and Commentaries* (London: Bloomsbury, 2015).

²⁶ Michal Šimůnek, "Česká eugenika a Velká válka [Czech Eugenics and the Great War]," in Inter arma... scientia. První světová válka a věda [First World War and Science], ed. Michaela Pokorná (Praha: VCDV, 2002),

political contexts, the Czech scholarship has not yet paid heed to the links between these expert discourses and the city. Moreover, a careful reading of the wartime interventions of scientists in the public sphere allows me to depart from the existing interpretations which tend to stress the continuity, rather than identify radical breaks of the sciences under scrutiny.

1.2 Theoretical Framework

By analyzing how expert knowledge framed policies of local actors and how it was, in turn, reshaped in response to them, this thesis strives to show the interplay of different levels of reality - of the intellectual, social, and political sphere. Consequently, it is necessary to draw on concepts provided both by intellectual historians and sociologists. The sociology of intellectuals and the debate revolving around the definition of its subject provide a good starting point. One of the recent contributions to this debate, an essay by Larissa Buchholz and Gil Eyal, presents a fresh attempt to reconfigure this branch of sociology by switching its attention from subjects to practices.²⁷ Consequently, the authors eschew the traditional normative sociology of intellectualry concerned with their allegiances to larger social groups or value systems. Instead, Eyal and Buchholz propose a "sociology of interventions" that analyzes various forms of "movement by which knowledge acquires value as public intervention" or, in other words, illuminates how knowledge enters the public sphere and with what consequences.²⁸ Shifting the focus to actors' practices of engagement with the public thus enables Eyal and Buchholz to go beyond the

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^{1–20;} Michal Šimůnek, Soziopolitische Bestrebungen der Tschechischen Eugenischen Gesellschaft in den Jahren 1915–1924 [Sociopolitical Attempts of Czech Eugenic Society, 1915-1924]," in Moderne Biologie. Möglichkeiten und Risiken, Hoffnung und Bedrohung [Modern Biology: Potentialities and Risks, Hope and Danger], ed. Michal Anděl et al. (Praha: 3. LF UK, 2003), 55–64; Michal Šimůnek, "Eugenics, Social Genetics and Racial Hygiene: Plans for the Scientific Regulation of Human Heredity in the Czech Lands, 1900-1925," in Blood and homeland: eugenics and racial nationalism in Central and Southeast Europe, 1900-1940, ed. Marius Turda and Paul J. Weindling (New York: Central European University Press, 2006), 145-166; Alena Šubrtová, Dějiny populačního myšlení v českých zemích [The History of Demographic Thought in the Czech Lands] (Prague: Česká demografická společnost, 2006).

²⁷ Buchholz and Eyal, "From the Sociology of Intellectuals," 117.

²⁸ Buchholz and Eyal, "From the Sociology of Intellectuals,"119-120.

previous focus on men of letters. These "universal intellectuals," therefore, are just one form of intervention into the public sphere, and the authors argue that they should not obscure the "specific intellectuals" or experts who carry out interventions in the public debates based on their "narrower" and "local" area of specialization.²⁹ In this thesis, I will thus analyze different forms of inserting knowledge into the public sphere by diverse actors, putting particular emphasis on expert interventions.

Moreover, I will try to contextualize these interventions by pointing to the social and institutional setting in which they emerged. Useful tools for such an analysis are provided by the interactionist sociology of Pierre Bourdieu. Bourdieu attempted to go beyond the French structuralist and existentialist traditions and, consequently, to bridge the binary opposition between structure and agency.³⁰ Consequently, he argues that there is a relation between an agent's social position, her dispositions ("habitus") and actions, but the nature of this relation is merely probabilistic.³¹ Thus, the actions of an individual are conditioned but not determined by the position an agent occupies within a particular set of social relations. An agent's location in such a "social field" is defined by the overall volume and structure of her economic and cultural capital and through its symbolic recognition.³² The aims behind the interventions of experts in public space, therefore, will be clarified here by examining their position within the "scientific" or "intellectual field."

In particular, while relating the interventions of these experts to their positions in the social fields, I will follow the French sociologist Gisèle Sapiro, who inscribes herself into the Bourdieusian tradition. Sapiro argues that there are three major factors influencing what form the intervention in public space of "universalist" or "specific" intellectuals assumes. Firstly, a

²⁹ Ibidem.

³⁰ Jerzy Szacki, *Historia myśli socjologicznej* [The History of Sociological Thought] (Warsaw: PWN, 2002), 889-890.

³¹ Pierre Bourdieu, *Practical Reason: On the Theory of Action* (Cambridge: Polity, 1998), 6.

³² Bourdieu, *Practical Reason*, 6-7.

low volume of symbolic capital of an expert is intimately linked with the tendency to seek allies and intervene as a group. Conversely, experts enjoying high prestige are more likely to opt for individualist strategies. Secondly, she argues, the degree of specialization has an impact on the question whether the actor would appeal to universal values or to specialist knowledge while making the case for her agenda. Thirdly, the amount of autonomy on the political demand from outside influences whether the expert will act – to use the famous Weberian distinction – as a priest or a prophet. While the former attempts to strengthen his position by attaching himself to an institution, the latter aspires to charismatic legitimacy.³³ The most relevant point for this thesis is the implication that the position in the intellectual field is not only important for the content of the intervention, but also for its form.

So far, the discussion of Bourdieu and sociologists who are working in his vein showed a possible way how to link expert interventions to a broader social context. The question now arises how these interventions gain (or fail to gain) support. To begin with, it is worthwhile to sketch the arena where the "universal" and "specific" intellectuals' interventions take place. One of the most influential approaches to the study of this arena – the public sphere – was produced by Jürgen Habermas in his early work *The Structural Transformation of the Public Sphere*. The philosopher coming from the Frankfurt school tradition provided a historical sociology of the advent of the "liberal model of the bourgeois [bürgerlich] public sphere."³⁴ Habermas located the emergence of this form of public sphere within the intertwined processes of the rise of the absolutist state, of ascending trade capitalism with its key institution of the market (of goods and of information), and finally, of the advent of the social group that was its

³³ Gisèle Sapiro, "Modèles d'intervention politique des intellectuels. Le cas français [Models of Political Intervention of Intellectuals. The French Case]," *Actes de la recherche en sciences sociales* (no. 176–77; 2009): 11-14.

³⁴ Jürgen Habermas, *The Structural Transformation of the Public Sphere. An Inquiry into a Category of Bourgeois Society* (Cambridge, MA: MIT Press, 1991), xviii.

carrier, the bourgeoisie.³⁵ He describes the public sphere at that particular period of time as "the sphere of private people come together as a public" that defines itself as distinct from, and even, as opposed to the state. Indeed, it is a locus where individuals and groups challenge the public authorities through the means of "people's public use of their reason."³⁶ For my analysis, it is crucial that Habermas emphasizes that the public sphere so conceived is not an abstract model, but a historical category.³⁷ Even though Habermas rightly argues that publicity has remained an "organizational principle of our political order," it has gone through substantial changes in the 19th and 20th century. One of the key changes is the growing complexity of debates and the concomitant rise of what I call here the "specific" intellectuals or experts. Consequently, by arguing that the experts emerged as major actors intervening in the public sphere in Bohemia, effectively challenging the central authorities, I will by implication trace the changes of the Czech public sphere during the First World War.

The emphasis on open, rational communication of autonomous individuals that is a stable element of Habermas's work neatly overlaps with the approach to the scientific knowledge promoted by the social studies of science and technology (SSST). For instance, Steven Shapin maintains that: "In sociological terms of art, an individual's *belief* (or an individual's claim) was contrasted to collectively held *knowledge*. The individual's belief did not become collective – and so part of knowledge – until and unless it had won credibility."³⁸ In this line of research, knowledge is thus conceptualized as a status that a scientist's truth-claim might obtain under certain conditions, through a process of rational deliberation between different constituencies. Since the truth status of knowledge is an outcome of a communicative action leading to a

³⁵ Habermas, The Structural Transformation, 14-24.

³⁶ Habermas, *The Structural Transformation*, 26.

³⁷ Habermas, *The Structural Transformation*, 4.

³⁸ Steven Shapin, "Cordelia's Love: Credibility and the Social Studies of Science," *Perspectives on Science* 3 (no. 3; 1995): 257.

consensus, the historian must not privilege in analytical terms the successful theory over its competitors.

Even though these assumptions have nearly become conventional wisdoms, I still believe that it is worthwhile repeating them here, for two reasons. Firstly, this line of research has recently followed the suggestions of Harry Collins and Robert Evans, who make the case that SSST should reframe itself as "studies of expertise and experience." In short, they argue that such a "third wave of science studies" should focus on the ways how experts can justifiably formulate their claims in a specific cultural context.³⁹ Secondly, these assumptions are conspicuously absent from a significant part of previous Czech scholarship on agricultural economics, nutrition science, and eugenics. For instance, Czech scholars of eugenics and genetics have during the past 25 years attempted to depart from the previous interpretation which tried to incorporate Czech neo-Lamarckians into a narrative legitimizing state-socialism and, consequently, granted them a privileged position in analytical terms. Conversely, in response to this socialist interpretation, the recent scholarship tends to emphasize the scientific character of Mendelism, while treating the competing theory as an aberration.⁴⁰ Departing from both prescriptive approaches, I will analyze here the competing theories in line with the approach promoted by the SSST.

Apart from constructing a theoretical framework that allows me to analyze the context in which expert interventions emerge and gain credibility, it is crucial to find a plausible theory illuminating the implementation of expert knowledge in practice. Consequently, the analysis of

³⁹ Harry M. Collins and Robert Evans, "The Third Wave of Science Studies: Studies of Expertise and Experience," *Social Studies of Science* 32 (no. 2; 2002): 235-296.

⁴⁰ For instance, Jan Janko argues in his otherwise illuminating analysis that those members of the biological community who did not have the "correct attitude toward Mendelism" unwittingly paved the way for the acceptance of Lysenkoism in the early 1950s. Jan Janko, *Vědy o životě v českých zemích*, *1750-1950* [Life Sciences in the Bohemian Lands, 1750-1950] (Prague: Archiv AV ČR, 1997), 315-316.

food politics of urban politicians in this thesis takes the research on urban elites as its starting point and expands it by Foucault's concepts of biopolitics and governmentality.

In the mid-1980s, two projects examining the middle classes (Bürgertum) were launched in Germany.⁴¹ On the one hand, the research carried out by social historians of the Bielefeld school focused on structures. The team working at Frankfurt University, on the other hand, concentrated on agents and practices.⁴² Inscribing themselves into the latter tradition, Robert Beachy and Ralph Roth in their volume *Who ran the cities?* set out to emphasize the complexity of power dynamics in modern cities. Consequently, Beachy and Roth argue that, far from being shaped by a "monolithic elite," cities are formed by interactions between various elite actors and the state. Thus, the urban political elite is just one of these elite groups, sharing its power with competing or cooperating economic, social, and cultural elites.⁴³ Even though I follow Beachy and Roth and consider other elite actors who have their share of power in urban areas, I think that it is still fruitful to emphasize the role of the political elites. These actors, I argue, were after all those who ultimately set the legal framework, decided about policies, and carried the political responsibility for their actions.

In methodological terms, Beachy and Roth contend that it is not an easy task to identify the members of diverse elite groups. Certain problems notwithstanding, the authors nonetheless admit that who belonged to urban political elite might be recognized based on the elected position these actors occupy and the prestige they enjoy.⁴⁴ However, in the absence of a

⁴¹ Jürgen Kocka, "Bürgertum und Sonderweg [Middle Classes and the Sonderweg Theory]," in *Sozial- und Kulturgeschichte des Bürgertums: Eine Bilanz des Bielefelder Sonderforschungsbereichs, 1986-1997* [Social and Cultural History of the Middle Classes: Taking Stock of the Bielefeld's Special Focus Area], ed. Peter Lundgren (Göttingen: V&R, 2000), 85.

⁴² Lukáš Fasora and Pavel Kladiwa, "Obecní samospráva a lokální elity českých zemí, 1850–1918. Dílčí výsledky výzkumu v České republice [Municipal Self-Administration and Local Elites in the Bohemian Lands, 1850-1918]," in *Občanské elity a obecní samospráva 1848–1948* [Civic Elites and Municipal Self-Administration, 1848-1948], ed. Lukáš Fasora, Jiří Hanuš and Jiří Malíř (Brno: CDK, 2006), 16.

⁴³ Robert Beachy and Ralph Roth, eds., *Who Ran the Cities?: City Elites and Urban Power Structures in Europe and North America*, 1750-1940 (Aldershot: Ashgate, 2007), xxiv.

⁴⁴ Beachy and Roth, Who Ran the Cities?, xix-xx.

prosopographic study of various Prague elite groups, I will have to limit myself here to the former criterion. For better or worse, I will therefore use the term urban political elites (or municipal authorities) to describe the elected members of central Prague's city council.

More precisely, this thesis examines a particular policy pursued by the urban political elite, one regarding food. In her analysis of everyday experience in wartime Vienna, Maureen Healy has coined the term "food politics." Engaging with politics, Healy follows the definition by the historian of the French Revolution Keith Baker, who suggests extending the term beyond institutional politics in order to include every "action through which individuals and groups in any society articulate, negotiate, implement and enforce the competing claims they make upon one another and upon the whole."⁴⁵ Consequently, the politics of food boils down to individuals and groups making claims about their "access to or distance from food."⁴⁶ The claims coming from various expert fields, from the political spheres and from their most important interlocutors are a subject of this thesis.

Crucially, the politics of food is part and parcel of what Foucault calls biopolitics. According to Foucault, biopolitics emerged at the end of the 18th century as a technology of power that "deals with a population ... as a political problem."⁴⁷ Biopolitics thus manages the biological processes in populations. It aims to control these aleatory events through deliberate interventions at the level of generality, in order to "protect the security of the whole from internal dangers."⁴⁸ Ultimately, such a protection boils down to "making live and letting die."⁴⁹ Medicine has become, according to Foucault, a key "power-knowledge" with which biopolitics is imbued.⁵⁰ Important, for my purposes, is Foucault's remark that even though the state

⁴⁵ Healy, Vienna and the Fall of the Habsburg Empire, 20.

⁴⁶ Healy, Vienna and the Fall of the Habsburg Empire, 22.

⁴⁷ Michel Foucault, *"Society Must Be Defended" Lectures at the Collége de France, 1975-76* (New York: Picador, 2003), 245.

⁴⁸ Foucault, "Society Must Be Defended," 249.

⁴⁹ Foucault, "Society Must Be Defended," 247.

⁵⁰ Foucault, "Society Must Be Defended," 252.

emerged and remained the main vehicle of biopolitics, it is also to be found at the "sub-state" level in the workings of various institutions.⁵¹ Given that the discourse of various disciplines of medicine (or life sciences in general) is far from being monolithic, this thesis strives to emphasize the differences between the biopolitical measures taken at the state level and in the local context and the "power-knowledge" behind them.

Furthermore, this thesis follows the political scientists Iver Neumann and Ole Sending in order to grasp how theory informed practice through the functioning of these institutions. Building on the Foucauldian notion of governmentality, Neumann and Sending distinguish between two forms of governing. On the one hand, the aim of police is to control the subjects through direct forms of governing and accumulated knowledge. Liberal governmentality, on the other hand, operates through liberty by creating preconditions and providing incentives for the actors to act in a particular way.⁵² In most general terms I argue that the debates and the ensuing practices represent a shift from a liberal form of governing at the very beginning of the war (agricultural science shaping the expectations on the market through its forecasts), toward police (nutrition science determining the dietary norms), and toward eugenics at the end of the war, which permeated both direct and indirect forms of governing at the local level.

Since there was, I argue, a clear link between the scientific debates in question and politics, their analysis is also a study of hitherto understudied realms of political thinking, as far as early 20th century Bohemian Lands are concerned. Hence, I am following here John Pocock's suggestion to look for the sources of and influences on political thought of what he calls "technical vocabularies" produced by particular professional groups. Pocock argues that historically speaking, the former often grew out of the latter.⁵³ The analysis of the political angle

⁵¹ Foucault, "Society Must Be Defended," 250.

⁵² Iver B. Neumann and Ole Jacob Sending, *Governing the Global Polity: Practice, Mentality, Rationality* (Ann Arbor: University of Michigan Press, 2010), 3.

⁵³ John Pocock, "The History of Political Thought: A Methodological Inquiry," in *Political Thought and History: Essays on Theory and Method* (Cambridge: Cambridge University Press, 2009), 14-15; See also John Pocock,

of expert debates thus draws on the methods formulated by the Cambridge school of history of the political thought. Following Quentin Skinner, I will analyze the performative functions of utterances in a certain context.⁵⁴ Even though this method that was originally developed for studies on the early modern era enables the historian to provide a context-sensitive reading of texts, in a study focusing on a political modernity in which ideologies held sway, this approach needs to be combined with a theory that enables to address these essentially modern phenomena. In a series of influential works, Michael Freeden suggests that ideologies might be fruitfully understood as attempts to reduce the complexity of concepts with the aid of which reality is perceived, and thus enable political action. Viewed from this perspective, ideologies are regarded as unstable configurations of concepts. Inside an ideology, these concepts, furthermore, are distributed – spatially, as it were – into a core and its peripheries.⁵⁵ With the help of these tools, I will explore here how expert fields acted as loci of political thinking in a region that was on its way into a political modernity.

Modernity, however, is not only an analytical category, but also the world of experience in which these actors were situated. Roger Griffin's theorizing on modernism provides a way to approach this issue. Griffin argues that modernity is marked by a drive toward increasing complexity. Modernity thus embodies an institutionalized transitory state, or to use Arpád Szakolczai's phrase, "a permanent liminality."⁵⁶ The response to this experience, Griffin argues, tends to generate modernist, palingenetic projects that attempt to leap from perceived decadence into "rebirth and renewal."⁵⁷ Hence, in Griffins interpretation, modernism is a

[&]quot;The Concept of a Language and the Métier d'historien: Some Considerations on Practice," in Anthony Pagden, The Languages of Political Theory in Early-Modern Europe (Cambridge University Press, 1987), 19-38.

⁵⁴ Quentin Skinner, "Meaning and Understanding in the History of Ideas," *History and Theory* 8 (no. 1; 1969), 3-53.

⁵⁵ Michael Freeden, "Concepts, ideology and political theory," in *Herausforderungen der Begriffsgeschichte* [The Challenges of Conceptual History], ed. Carsten Dutt (Heidelberg: Winter, 2003), 51-63.

⁵⁶ Roger Griffin, "Tunnel Visions and Mysterious Trees: Modernist Projects of National and Racial regeneration, 1880-1939," in *Blood and Homeland. Eugenics and Racial Nationalism in Central and Southeast Europe, 1900-1940*, ed. Marius Turda and Paul J. Weindling (Budapest: CEU Press, 2007), 428.

⁵⁷ Griffin, "Tunnel Visions," 429.

response to modernity, a response, moreover, that tends to couch itself in a scientific language. In the emergent intermingling of "science and myth" the projects of collective regeneration and purifying the race enter scientific discourse.⁵⁸ So, a "technocratic modernism" arose that strove to fight decadence and degeneration and was compatible, Griffin argues, with a wide range of political ideologies.⁵⁹ An analysis of the selected life sciences, and particularly, of eugenics will show how extant this was in the wartime Bohemian Lands that were soon to become, as Martin Kohlrausch, Karin Steffen and Stefan Wiederkehr have nicely put it, a "forerunner of technocratic thinking in the region, if not in Europe."⁶⁰

1.3 Outline of the Chapters

This thesis is divided into three chapters, each covering one expert debate – in agricultural science, physiology, and eugenics, respectively – and demonstrating its embeddedness in and ramifications for the urban context. This division, however, is not only thematic, because the debates in question were chronologically successive and there were causal links between them. In particular, the dispute in agricultural science was most intensive at the beginning of the First World War and eventually, it spilt over into physiology. The discussion in the latter discipline intensified between 1915 and 1916. The debates of eugenicists reached their apogee during the last two years of the conflict, often drawing on arguments provided by the physiological research. Taken together, these cases underpin the main argument of this thesis by showing the various ways the actors operating at the local level shaped the politics of food.

In order to gain insight into this interplay of expert knowledge and food politics at the local level, the first chapter aims to analyze a series of forecasts published by agricultural

⁵⁸ Griffin, "Tunnel Visions," 449.

⁵⁹ Griffin, "Tunnel Visions," 434.

⁶⁰ Kohlrausch, Steffen, and Wiederkehr, *Expert Cultures*, 17.

scientists which inundated Czech readers shortly after the declaration of the World War I. A closer reading of these expert interventions in the public sphere that engaged with the ability of the Empire's agriculture to cover the needs of the domestic consumers suggests, I argue, a broad initial consensus among the agriculturalists regarding the theoretical approach, as well as the suggested strategy. Originally, the dispute was thus limited only to a tactical question whether the consequences of the looming shortage would be better mitigated by creating optimistic or pessimistic expectations among the consumers. Consequently, I argue in the first part of this chapter that by providing competing visions of the near future, these forecasts made an effort to shape the horizons of expectation through predictions which either attempted to override or to confirm the traditional experience that war tended to generate shortages of food. Studying the impact of this debate on the urban political elites in Prague, I demonstrate that the arguments of the experts entered their discourse and influenced their policies. Having subscribed to the pessimistic scenario, the municipal authorities broke with their prewar exclusiveness and started pursuing an active food politics that was sensitive to the needs of the disenfranchised inhabitants of the Prague agglomeration.

The second chapter analyzes the polemics in Czech physiology which gained impetus in 1915 and continued for two subsequent years. In the chapter I argue that Czech physiology was far from being a monolithic discourse, as there were two competing notions of the body. Apart from the mechanistic concept, imagining the body as a modern engine, there was also a systemic approach, which stressed its relative autonomy. Crucially, while the former justified the politics of food of the central authorities, the systemic approach influenced the actors at the local level. Consequently, I argue that by informing the discourse and food politics in Prague, this expert knowledge contributed in its effects to a significant extension of the welfare policies pursued by the local authorities. For the local authorities, however, this had unintended consequences. Having gained credibility among the city's population, this expert knowledge eventually started to fuel discontent with the decreasing quality and quantity of food distributed by the urban authorities and thus contributed to their demise.

The growing concerns about the effects of the war on the biologically defined national community paved the way for the rising importance of a modernist project of biological renewal, eugenics. The purpose of the third chapter is to point to the discontinuities in the history of Czech eugenics by analyzing the early debates in which eugenicists popularized their emerging discipline while re-negotiating its identity. Placing particular emphasis on the key dispute about the neo-Lamarckian and Mendelian theories of heredity, I argue here that these debates co-created the perceived wartime biopolitical challenges, such as population decline and degeneration of the starving population, and were, in turn, restructured by the response to them. The chapter explains how, by enabling the eugenic experts to forge coalitions with various social groups, the newly formulated project of "sociological eugenics" emphasizing a theory of soft heredity, deliberate reform of the environment, and an alliance with civic organizations, mobilized public support for the discipline and dominated the scientific field, while marginalizing the promoters of hard inheritance and negative eugenic measures. Aiming at the betterment of starving bodies through a deliberate change of the environment, "sociological eugenics" thus emerged by the end of the war as a key body of knowledge informing the distribution of food in Prague driven by local private initiatives and as a tool of anti-imperial contestation. All in all, these debates show the rising power and prestige of the experts who eventually linked themselves with the newly emerging nation-state, or extended their interventions and turned into "generalist" intellectuals. Their ascent thus heralded the beginning of a new era, of the 20th century, which has been not without a reason called "the century of the expert."61

⁶¹ Kohlrausch, Steffen, and Wiederkehr, *Expert Cultures*, 1.

2. "War Fields and Corn Fields:" Shaping the Horizons of Expectation about Food Shortage through Expert Agriculturalists' Forecasts, August 1914 - Summer 1915.

Immediately after the outbreak of the First World War, agricultural experts started flooding the Czech public with forecasts. With Austria-Hungary nearly completely cut from the imports, the experts attempted to predict whether and under which conditions the Empire's agriculture could produce an amount of foodstuffs sufficient to cover domestic consumption. I argue here that the intense, and increasingly polarized, debate that emerged in the second half of 1914 was one of the first occasions when a conflict between expert forecasts reached a massive audience in the Czech public sphere and its protagonists thus gained new symbolic prestige and power. Drawing on Reinhart Koselleck's notions of "space of experience" and "horizon of expectation," this chapter aims to analyze how these authors imagined the near future and which "spaces of experience" they sought to override or justify through scientific knowledge.⁶²

The debate, although not yet analyzed in detail, has been so far interpreted as a conflict of visions of future which had been from the outset radically different, one stressing "the self-sufficiency of the Western half of the Empire whose agriculture can even produce surplus," and advocating the free market, while the other made its case for state-led distribution of food by pointing to economic problems linked to the war and the looming danger of food shortage.⁶³ However, I argue in this chapter that a more careful reading of the interventions of experts in this debate reveals that initially there was a far-reaching consensus among them regarding both their theory, horizon of their expectations, and policies they recommended. I demonstrate that the debate started merely as a tactical dispute over what constituted the most efficient means of

⁶² Reinhart Koselleck, *Futures Past. On the Semantics of Historical Time*, (New York: Columbia University Press, 2004), 255-275.

⁶³ Ivan Šedivý, *Češi, české země* a Velká válka, 1914–1918 [Czechs, the Bohemian Lands and the Great War] (Praha: NLN 2001), 248-249.

steering food consumption in a desired way by deliberately shaping the horizons of expectation of economic agents through predictions. Only later did it escalate into a full-blown controversy which eventually, by focusing on the concept of a "physiologically minimal calorie intake," spilt over from economics into nutrition science. Furthermore, it will be demonstrated how during the first months of the war the debate shaped the expectations of the urban political elites who responded by launching an active food politics. By showing how through forming expectations of actors, the expert knowledge influenced the policies at the local level, the case of agricultural science thus reinforces the main contention of this thesis that stresses the role of local actors, both expert and non-expert, in forming of food politics.

2.1 From Consensus toward Conflict: Expert Debate about the Future Performance of Habsburg Agriculture

"With the imports into our country from abroad being blocked, the question of our selfsufficiency in cereals has become probably the most pressing economic problem nowadays, a problem that is dealt with in this brochure."⁶⁴ With these words, an anonymous author writing for the leading national-liberal daily *Národní listy* [The National Newspaper] opened his critical review of a pamphlet by a chief Czech agricultural economist Karel Viškovský. Even though the pessimistic prediction that the country would suffer from food shortage was likely to come true, the reviewer argued, the resulting policy advice stressing the combination of free market and limited state intervention as a solution to the problem was biased by the agrarian ideology and the agrarian interests embodied by the author.⁶⁵ Published in the late October of 1914, this booklet was part and parcel of a burgeoning expert debate on the future prospects of Habsburg Empire's agriculture during the war. This debate was sparked in August 1914 by a leading

⁶⁴ "Review of 'Karel Viškovský, Válka a obilí," Národní listy 54 (November 15, 1914): 10.

⁶⁵ Ibidem.

agricultural chemist Julius Stoklasa.⁶⁶ Apart from articles on the pages of scientific magazines and in general-interest newspapers, the debate that had not petered out before the 1915 harvest unfolded also in a series of pamphlets, and in numerous public lectures delivered by various experts both in Prague and in the country. As the areas of specialization of Stoklasa and Viškovský - the main protagonists of the debate - already suggest, agricultural scientists and economists played a key role in it. Even though it was not unusual before the war for agricultural experts to publish conflicting forecasts, these usually appeared in specialized journals and focused on specific trade goods such as hops or barley.⁶⁷ Consequently, their audience was limited mostly to professionals. Having brought experts to the center of general readers' attention and having made a seemingly specialized and technical problem into the main bone of contention in the public sphere, the debate that took off in the immediate aftermath of the outbreak of the First World War thus indicated a major change in the role played by the experts in the public sphere.

By the time the war had started, the Bohemian Lands already had an advanced marketoriented agriculture.⁶⁸ Eager to increase further its efficiency by developing and implementing technological improvements, the landowners and the authorities had established and had been providing the necessary funding for a relatively high number of institutions that carried out both applied and primary agricultural research.⁶⁹ The network of schools that provided secondary

⁶⁶ Julius Stoklasa, "Postačuje zemědělská výroba v Rakousku-Uhersku spotřebě potravin? [Does the Agricultural Production in Austria-Hungary Cover the Food Consumption?]," *Národní listy* 54 (No. 233; August 26, 1914): 1-2.

⁶⁷ See e.g. "Zprávy o chmeli [Reports on Hops]," *Hospodářsko-chmelařský věstník* 2 (No. 8; August 30, 1893):
37.

⁶⁸ For a recent interpretation of the economic history of Bohemian Lands, see Antonín Kubačák, "Vývoj primárního sektoru: vývoj zemědělství [The Development of the Primary Sector: The Development of Agriculture]," in *Hospodářský vzestup českých zemí od poloviny 18. století do konce monarchie* [The Economic Rise of the Bohemian Lands since the mid-18th Century until the End of the Empire], ed. Zdeněk Jindra et al. (Prague: Karolinum, 2015), 145-198.

⁶⁹ In particular, considering that the Bohemian agriculture was to a significant extent specialized in providing natural resources for the local sugar refineries and breweries, research that made sugar beet or barley into its object could well count with sizable support from private actors. Janko, *Vědy o životě*, 340-342.

education in agriculture started developing already in the mid-19th century and the agrochemical experimental stations started mushrooming in Bohemia at about the same time. Furthermore, in the mid-1860s, two renowned Higher agricultural schools (Zemská vyšší škola hospodářská/ Königlich Böhmische Landwirtschaftliche Akademie) in Tábor and Libverda/Liebwerd were founded.⁷⁰ Since the 1880s, the number of agricultural high schools and of private breeding stations rose significantly. Finally, the tertiary-level education became available after the turn of the century, when in 1906 the Czech technical university in Prague started offering degrees in agriculture. However, among the institutions producing knowledge about agriculture, the public Agricultural Council of the Kingdom of Bohemia (Zemědělská rada pro království České/Landeskulturrat für das Königreich Böhmen) was arguably the most influential one. Significantly, both key protagonists of the debate were based at this institution with close links to the Agrarian Party. Not only did the Czech section of the Council⁷¹ employ the economist Karel Viškovský, but it also maintained a Research station for agriculture and physiology (Výzkumná stanice hospodářsko-fyziologická) in Prague, which was run by Julius Stoklasa. Apart from Prague, another research stations were located in Tábor and Semčice.⁷² Given that there was a vast network of institutions in Bohemian Lands that carried out research in agricultural science oriented toward practical application, it is little wonder that it was exactly the agricultural scientists who were able to respond so fast to the wartime challenges and became the driving force of the debate.

While formulating their arguments, both Stoklasa and Viškovský drew on the same economic theory. Their main resource was the Prague-based economist, politician, and Austrian Minister of Agriculture Albín Bráf (1851-1912). Originally inspired by the classical economics

⁷⁰ Janko, Vědy o životě, 196.

⁷¹ Similarly as many other institutions in Bohemia, the Agricultural Council was (since 1891) divided into a Czech and a German section.

⁷² Janko, Vědy o životě, 208.

of John S. Mill, in his later work Bráf attempted to fuse the elements of the German historical school and the Austrian approach to the economic analysis. A chief representative of the liberalconservative Old Czech Party, Bráf sought a middle ground between economic liberalism and the government intervention, which he deemed crucial for mitigating the deficiencies of the former.⁷³ His research, drawing often on rich statistical material, revolved around two main issues. First, most notably in his early study on the labor relations in the coal mining regions of North Bohemia, Bráf's work inquired how - through the working of institutions such as insurance - to maintain social stability despite the increasing presence of the 'social question.' Second, bearing in mind that apart from being an industrial core of the Empire, Bohemia was one of Austria's key agricultural regions, Bráf devoted particular attention to the problems of agricultural development.⁷⁴ Bráf, a popular teacher, had been since the 1870s based at the Faculty of Law of the Prague University and trained subsequent generations of Czech economists. His students then formed what was the mainstream economic thought well into the 1920s.⁷⁵ Karel Viškovský, who obtained his degree in law in 1891 was among them.⁷⁶ Bráf's guidance is clearly manifest from Viškovský's early research which included the problems of agricultural insurance, thus merging Bráf's both research interests.⁷⁷ Stoklasa, who was trained at the Higher Agricultural school in Libverda/Liebwerd and then in Vienna, and specialized in agricultural chemistry, also followed Bráf's approach, although he had no contact with Bráf as a student. Nevertheless, since Stoklasa strove to convince his readers about his economic arguments, he opted for what was then the mainstream economic approach in Czech context.

⁷³ Catherine Albrecht, "Two Czech Economists: Albín Bráf and Josef Kaizl," *East Central Europe* 19 (No. 1; 1992): 1 and 7.

⁷⁴ Antonie Doležalová, "Od Albína Bráfa k Josefu Mackovi – příspěvek k výročí úmrtí dvou významných českých ekonomů [From Albín Bráf to Josef Macek – A Contribution to the Anniversary of the Death of Two Significant Czech Economists]," *Politická ekonomie* 61 (No. 3; 2013): 430.

⁷⁵ Catherine Albrecht, "The Influence of Albín Bráf," in *Albín Bráf: Politik, národohospodář a jeho doba,* ed. Antonie Doležalová (Prague: Studie Národohospodářského ústavu Josefa Hlávky, 2013), 15.

⁷⁶ Lukáš Kopecký, "Zapomenutý sušický rodák Karel Viškovský (1868-1932) [A Forgotten Son of Sušice: Karel Viškovský, 1868-1932]," *Vlastivědný sborník Muzea Šumavy* 9 (2016): 317.

⁷⁷ Karel Viškovský, *Pojišťování krupobitní v Čechách: jeho nedostatky a náprava* [Crop-Hail Insurance in Bohemia: Its Shortcomings and Reform] (Prague: Eduard Beaufort, 1897).

Thus, the theoretical starting point for both authors was the economics as it was promoted in the Czech context by Albín Bráf.

By the time the war broke out, Julius Stoklasa (1857-1936) was already a wellestablished chemist and agricultural scientist. In institutional terms, apart from being the director of Research station for agriculture and physiology of the Bohemian Agricultural Council, Stoklasa was linked to the Czech Technical University, where since 1901 he held a full professorship in agricultural chemistry.⁷⁸ As a leading agriculturalist, Stoklasa was one of the first to realize and articulate in public that the agriculture of the Empire does not have sufficient spare capacity to supply domestic consumption of foodstuffs, if the consumption remains undiminished. Moreover, Stoklasa feared, the danger of food shortage would substantially grow if the conflict carried on for a longer time. He voiced his concerns in an extensive article under the title Does the Agricultural Production in Austria-Hungary Cover the Food Consumption? that stretched over the first two pages of the August 26th issue of Národní listy and was later republished by the Viennese liberal Neue Freie Presse.⁷⁹ Ironically, in the consequent debate and in the existing scholarship, Stoklasa was interpreted as the expert who had claimed that the Empire's resources were sufficient and thus no specific measures needed to be taken.⁸⁰ At a first glance, this interpretation seems to be corroborated by Stoklasa's conclusion, which states that "even if the grain harvest was not better this year than in 1913, our self-sufficiency as far as foodstuffs are concerned is nonetheless complete."⁸¹ Yet a closer inspection reveals that in his analysis of the Empire's production and consumption of foodstuffs based on rich historical and contemporary statistical sources, Stoklasa concluded that the

⁷⁸ Janko, Vědy o životě, 602.

⁷⁹ See Julius Stoklasa, "Eine ausreichende Bodenproduktivität Oesterreich-Ungarns für den Nahrungsmittelbedarf [The Soil Productivity in Austria-Hungary is Sufficient for the Nutritional Needs]," *Neue Freie Presse* 50 (September 19, 1914): 9-10.

⁸⁰ Stoklasa, "Postačuje zemědělská výroba?," 1.

⁸¹ Stoklasa, "Postačuje zemědělská výroba?," 2.

Empire could be self-sufficient in 1914 only based on the tacit assumption that serious measures limiting the consumption would be taken by the state.

While he was estimating the consumption, Stoklasa counted on a substantial increase in efficiency of the use of foodstuffs. He assumed that mills would produce flour of 80% extraction, much higher than was usual at the time. Furthermore, he presumed that the utilization of grain as fodder would be prohibited.⁸² Moreover, Stoklasa supposed that consumption of flour in households would be significantly reduced and this flour would be used for making bread instead. Additionally, Stoklasa made it clear that export of foodstuffs (especially of grain) needed to be stopped. Finally, he suggested that grains could be replaced by other foodstuffs. Consequently, the consumption of potatoes would increase and to economize, it would be necessary to end their utilization in the production of starch and of spirits, Stoklasa argued. By the same token, the consumption of meat had to be reduced as well, as meat could be replaced by vegetables as a source of proteins.⁸³ Stoklasa, who apparently believed that war would not end as early as some had expected, provided an even more somber a vision of the future concerning the performance of the Empire's agriculture in 1915. According to Stoklasa, it was absolutely crucial to step up the domestic production of artificial fertilizers and to substantially increase the wheat planted area, by substituting it for sugar beet, in order to prevent food shortage.⁸⁴ Most of these measures could be implemented only through state intervention in the economy, and Stoklasa's article was clearly a call for the state to intervene.

Obviously, the question arises why Stoklasa concluded the article on such an optimistic note when he was apparently worried about the country's future and saw the necessity of

⁸² Only 2 % of the harvest, he estimated, would either be discarded, or used as fodder or would become worthless due to bad storage. Stoklasa, "Postačuje zemědělská výroba?," 1.

⁸³ Stoklasa, "Postačuje zemědělská výroba?," 2.

⁸⁴ Stoklasa, "Postačuje zemědělská výroba?," 2.

substantial changes in the agricultural production and consumption. The seemingly optimistic phrasing of his prediction was supposed to shape the expectations of the large public. Stoklasa attempted to counter the panic that had already started to affect the market and drove the consumers and retailers to hoard the foodstuffs in the expectation of the future shortage. Stoklasa's intervention into the public debate was ultimately motivated by fear that the accumulated reserves in households would weaken the effect of the potential state intervention.85 Stoklasa's main challenger in the debate, Karel Viškovský (1868-1932), opted for a different tactics. In his alarmist articles, interviews and lectures he started giving shortly after Stoklasa had begun the debate, Viškovský estimated that the Empire's agriculture would fall short of the domestic consumers' needs. Paradoxically, this prediction prompted Viškovský to argue for a strategy that was in its outlines initially the same as the one proposed by Stoklasa. Only accumulating reserves and tightening one's belt under the guidance of the state could save the Empire's population from food shortage. In his articles, Viškovský made it clear that until the state intervenes, only a significant rise in prices provoked by the panic on the market could stop the households from creating reserves that would later hamper the state-led management of resources.86 Undoubtedly, Viškovský's intervention in the debate was an attempt to stir such a panic.

There was thus a broad consensus between the authors, and the only bone of contention was the immediate tactics. Before the war, two currents were competing for the power to define what agrarianism meant and where the emphases rested. On the one hand, there was a conservative ("landed estate owners") wing that gathered around Karel Prášek, on the other hand, their views were contested, with a large degree of success, by a populist ("smallholders"")

⁸⁵ Julius Stoklasa, "Prameny výživy obyvatelstva v době války [Sources of Nutrition of the Populace during the War]," *Venkov* 9 (December 11, 1914): 5.

⁸⁶ Karel Viškovský, "Obilní tržba a spotřebitelé [Corn Market and the Consumers]," Venkov 9 (September 27, 1914): 3.

wing, led by Antonín Švehla. Even though little research had been done on the agrarian ideology, it seems that for the conservative wing, maintaining the social order was more important than stimulating large estates' profits, whereas the populists welcomed any means that could ensure a larger redistribution of wealth in favor of the peasants.⁸⁷ While Stoklasa supported the conservative wing, the agricultural economist Viškovský, who was also a high-ranking member of the agrarian party,⁸⁸ was tightly linked to the populist wing. The preferred tactic thus selected by the authors was based on what they considered crucial elements of agrarian ideology.

The original consensus regarding the theory and the preferred strategy, however, soon started to fall apart, as it was becoming increasingly apparent that the harvest would be lower than the experts had estimated and that the availability of foodstuffs would be affected by the territorial losses the Empire had suffered. Consequently, by November 1914, the two experts started to strongly disagree on the strategic question, to what extent the state should intervene in the economy. Stoklasa, who had in the meantime become a member of the State Provisioning Council, argued that the state should not only take control of the available resources, but also take charge of the production and distribution of bread. At the same time, it was the state's task to ensure that there would be enough artificial fertilizers and to distribute them among the peasants in order to maintain the current efficiency of the production.⁸⁹ Stoklasa's arguments, which were clearly informed by contemporary German debates resonated not only in the province, but received even broader attention in the imperial centre. A lecture Stoklasa

 ⁸⁷ Jaroslav Rokoský, "Agrární strana," in *Politické strany: Vývoj politických stran a hnutí v českých zemích a Československu, 1861-1938* [Political Parties: The Development of Political Parties and Movements in the Bohemian Lands and Czechoslovakia, 1861-1938], ed. Jiří Malíř and Pavel Marek (Brno: Doplněk, 2005), 431.
 ⁸⁸ Viškovský was one of the vice-presidents of the party and served as a deputee in the Bohemian Diet and the Imperial Diet, before these had been suspended. Kopecký, "Zapomenutý sušický rodák," 319-323.
 ⁸⁹ "Obilní komory rakousko-uh. a výživa lidu za války [Granaries of Austria-Hungary and the Nutrition of the Populace during the War]," *Národní listy* 54 (No. 307; November 8, 1914): 7.
and numerous other high-ranking state officials.⁹⁰ Even though Stoklasa's main critic Viškovský did not deny that the state should intervene with the aim of regulating the consumption, his main contention was that this state intervention should not offset the market, but rather go hand in hand with the private actors.⁹¹ Among them, Viškovský started to emphasize not only the role of the private retail merchants, but also of cities and their self-government institutions, some of which had by the time Viškovský was writing already started buying foodstuffs and thus accumulating reserves. However, Viškovský was critical of the fact that various local authorities were in fact competing for the same resources. Consequently, according to Viškovský, it was advisable that the agents linked with local self-government join their forces and coordinate their buying of resources. Moreover, even though buying of foodstuffs by local governments was justified, Viškovský argued, the municipal authorities should start distributing the amassed reserves only when the market fails.⁹² Thus, while still remaining within Bráf's legacy, Stoklasa's and Viškovský's views regarding the strategic issue of the desirable extent of the state intervention and of distribution through market went in different directions.

Stoklasa quickly adjusted his research programme to the wartime context and embarked in 1914 on a project whose aim was to determine the nutritional value of various types of bread made with different substitutes. He was able to publish the first results already at the beginning of 1915.⁹³ Eventually, the already quite heated polemics between Stoklasa and Viškovský left

⁹⁰ "Obilní komory," 7.

⁹¹ Karel Viškovský, *Válka a obilí. Příspěvek k časové otázce* [War and Corn. A Contribution to a Timely Problem], (Prague: Neubert, 1914).

⁹² Karel Viškovský, *Boj o chléb* [Struggle for Bread] (Praha: Reinwart, 1915), 45-47.

⁹³ See e.g. Julius Stoklasa, "Der Stand der Brotfrage in Deutschland und Oesterreich-Ungarn während des Krieges [The Situation of the Bread Issue in Germany and Austria-Hungary during the War]," *Chemiker-Zeitung* 39 (No. 43-44 and 46-47; 1915): 274 and 297; Julius Stoklasa, *Entspricht die jetzige Broterzeugung den modernen biochemischen Forschungen der menschlichen Ernährung*? [Does the Current Bread Production Comply with the Modern Biochemical Research in Human Nutrition?] Sonderabdruck aus der Deutschen medizinischen Wochenschrift (Leipzig: Georg Thieme, 1915). Not surprisingly, Stoklasa concluded his study by arguing that "auf Grund der biochemischen Studien muss jetzt unsere Tendenz sein, sich mehr als früher dem Genusse eines aus stark ausgemahlenem Getreide hergestellten Brotes zuzuwenden."

the domain of agricultural science and shifted to nutrition science. This final twist in the debate was brought by Viškovský, who in early 1915 in a series of articles and in two pamphlets started to question Stoklasa's expert credentials and challenged the biochemist to justify his early predictions. In a highly emotional tone, labeling Stoklasa as "the false prophet of our economic triumph," Viškovský argued that an expert is credible only as long he keeps his personal integrity intact. He explicitly stated that this was not the case for Stoklasa whose predictions were driven by an "immense ambition."⁹⁴ At the heart of this disagreement, there were two different concepts of what legitimized the expert as a social role. Stoklasa who sought to justify his actions by pointing to his position in the academia, embodied the traditional concept of legitimacy. Viškovský, on the other hand, claimed to personify the expert whose actions were justified by the fact that his actions followed a certain procedure and thus he retained a personal integrity. He thus drifted towards what Max Weber identified as the modern, "legal" legitimacy.⁹⁵

In response to Viškovský's challenge, Stoklasa brought to the fore the notion of "minimum necessary nutritional intake." If the consumption remained restricted to this small amount that ensures survival and that had been identified by nutrition science, Stoklasa argued, the resources would have been adequate.⁹⁶ Stoklasa thus responded to Viškovský's challenge by moving the debate to the scientific field where his opponent could not raise claims to expertise. (His move, however, provoked a critical response of physiologists, which will be analyzed in detail in the second chapter of this thesis.) The outcome of the debate was ambiguous. While Stoklasa's views resonated in the imperial centre and his policy recommendations were partially implemented, Viškovský's interpretation eventually proved

⁹⁴ Viškovský, *Boj o chléb*, 7-14.

⁹⁵ Max Weber, *Gesammelte Aufsätze zur Wissenschaftslehre* [Collected Essays on the Sociology of Science], ed. Johannes Winckelmann (Tübingen: Mohr, 1985), 488.

⁹⁶ Julius Stoklasa, *Boj o chléb. Odpověď*. [Struggle for Bread. A Rejoinder] (Tábor: Frank, 1915).

dominant in the province of Bohemia, informing the discourse and policies of the local authorities at the urban level.

2.2 "The Last Solid Ground of Civic Life": Prague's Urban Political Elites Between Representation and Exclusiveness and the Impact of the War

Out of the three levels of government existing in the Western half of the Habsburg Empire – imperial, provincial, and municipal – local governments were the only institutions directly elected by Bohemia's citizens which were still operating when the Great War broke out. Other elected institutions had been shut down already before the war. In particular, functioning at the highest level of government, the Imperial Council was suspended during the July Crisis of 1914, immediately preceding the war. The highest political body in the province of Bohemia - the Bohemian Diet (Sněm Království českého/Böhmischer Landtag) - was dissolved even earlier, in July 1913, following failed negotiations between Czech and German representatives, a protracted boycott of the Diet by German deputies and the near bankruptcy of the province. It never gathered again.⁹⁷ Enjoying a significant level of autonomy, the local governments thus remained the only political representatives of the Bohemian voters until May 1917, when the Imperial Council was reconvened, and urban political elites often pointed to this fact.⁹⁸ An editorial of Věstník Svazu českých měst v království Českém – a Bulletin published by the organization uniting Czech cities in Bohemia – written in autumn of 1914 put a particular emphasis on this argument: "All power in public matters now rests in the hands of the executive - of the government and its bodies," the authors observed wryly, stressing that "only the [local] self-administration (...) remains further in the hands of the citizenry."⁹⁹ Apart

⁹⁷ Šedivý, "Češi, české země a velká válka," 49.

⁹⁸ Representation in this case is thus not only historian's category of analysis, but served as what Rogers Brubaker and Frederick Cooper called the "category of practice." See "Beyond 'Identity'," *Theory and Society* 29 (2000): 1-47.

⁹⁹ "Samospráva v době válečné [Self-Administration in the Time of War]," Věstník Svazu českých měst v království Českém 4, (No. 7-8; February 28, 1915): 205.

from being just an analytical observation, the fact of being the last body representing Bohemia's civic life was stressed by the urban political elites with particular vehemence as a vital part of their political identity and a key source of their legitimacy in the unstable wartime context.

Yet, these claims to representation on part of the elites who exercised political power at the local level were to some extent paradoxical, since there were significant limits of political representation at the municipal level.¹⁰⁰ These constraints were particularly pronounced in the case of Prague agglomeration, where only a small fraction of inhabitants could influence the political process. One of the causes was the administrative fragmentation of the area, which privileged the "inner city." The "inner city" is a crucial term here, indicating that unlike Vienna or Budapest, Prague agglomeration had not been unified under a single governing body, neither before, nor during the war. For that reason, numerous groups of urban political elites were active in the Prague agglomeration, with different institutions at their disposal. The most important of them were those who ran the "inner city" of Prague comprising the old city quarters unified already in 1784 (Old Town, New Town, Lesser Town and Hradčany) and four other city wards. With more than 200 000 inhabitants, the "inner city" was the most populated, and wealthiest part of the agglomeration. (Consequently, it employed the largest number of experts.) However, the "inner city" included only the central parts of the agglomeration, while populous middle class areas such as Královské Vinohrady/Königliche Weinberge or working class suburbs, such as Vysočany/Wissotschan enjoyed the legal status of towns and were fully independent on the "inner city." Even though various actors repeatedly strove for administrative unification, no result had materialized before the collapse of the Habsburg Empire. As a prominent urban historian of Prague Jiří Pešek has demonstrated, this failed unification was caused by the resistance of local interest groups in the suburbs who were strictly opposed to the increase of

¹⁰⁰ On the concept of representation, see Andrew Reeve, 'Representation, political,' In: Routledge Encyclopedia of Philosophy (London: Routledge, 1998).

property taxes which the unification would entail. Although the local elites of the "inner city" and of the suburbs had to cooperate or coordinate their policies concerning some issues, it was rather an exception than the rule.¹⁰¹ Consequently, the inhabitants of the suburbs were before and during the war deprived of the possibility to participate in the politics that shaped the city center and had important consequences also for their lives.

Furthermore, another limit of representation was to be found in a quite restricted suffrage and citizenship. Czech legal scholars and historians have produced thorough analyses of the Bohemian self-administration, interpreting them as the key institutions that in the course of the 19th century shaped the Czech political culture and formed the Czech political elite.¹⁰² Drawing on this rich body of literature, Cathleen Giustino has provided in her book a useful overview of Prague's administrative structures.¹⁰³ Even though the local political life in the Western half of the Empire was regulated by the law on municipal bodies that had been issued at the beginning of the 1860s, "inner Prague" did not follow it. Like in some other cities in Cisleithania, the structure of administrative bodies and the rules of political competition in Prague were set in the individual Municipal Statute of Prague (Obecní řád pražský, Gemeinde-Ordnung für Prag) which had been issued in 1850 and - with some minor changes - delineated the boundaries of urban politics until the dissolution of the Empire. In a nutshell, the right to vote was restricted only to the citizens who paid a certain amount of money in taxes or exercised some of the defined public functions. Restricted by the criteria of wealth and education, less

¹⁰¹ Jiří Pešek, *Od aglomerace k velkoměstu: Praha a středoevropské metropole 1850-1920* [From Agglomeration toward a Metropolis. Prague and the Central European Capitals, 1850-1920] (Prague: Scriptorium, 1999).
¹⁰² Out of the broad literature engaging with legal aspects of Bohemian self-administration, it is worthwhile mentioning above all a seminal study by legal historian Jiří Klabouch, *Die Gemeindeselbstverwaltung in Österreich 1848-1918* [The Local Self-Administration in Austria, 1848-1918] (Wien: Verlag für Geschichte und Politik, 1968); an analysis of the administrative practices of local self-governments (Hlavačka, "Zlatý věk české samosprávy") and a concise overview of administrative structures in Zdeňka Hledíková and Jan Janák and Jan Dobeš, *Dějiny správy v českých zemích: od počátků státu po současnost* [The History of Administrative Institutions in the Bohemian Lands: From the Emergence of the State to Contemporary Times] (Prague: NLN, 2011), 297-308.

¹⁰³ Cathleen M. Giustino, *Tearing down Prague's Jewish Town: Ghetto Clearance and the Legacy of Middle-Class Ethnic Politics around 1900*, (Boulder: East European Monographs, 2003), 15-63.

than 6% of the adult population of "inner Prague" could vote for Prague's aldermen before the war. Furthermore, their votes did not have the same value. They were divided, according to the same criteria into three curias, each electing 30 seats in the parliament.¹⁰⁴ Consequently, in this "patriarchal, oligarchic and exclusionary"¹⁰⁵ system only a small margin of "inner Prague's" inhabitants could actually influence the outcome of the elections.

The already quite constrained space for participation was further diminished due to the particular strategy pursued by the ruling political parties. In 1893, after nearly a decade of struggle for political power, the liberal-conservative Old Czech and the national-liberal Young Czech Party forged a compromise where they agreed to share control over the "inner city." Consequently, after 1893, the formerly competing parties presented a common list of candidates for every elections. According to Giustino, who analyzes this deal in detail, the compromise "reduced the room for participation of Prague citizens in the local political life" and blocked "the chances of the opposition parties to meaningfully take part in the local politics."¹⁰⁶ Giustino rightly argues that the compromise betrayed deep mistrust of the two parties over the city has never been absolute, however, since some candidates who opposed the deal or belonged to the opposition parties also succeeded in the elections. Nevertheless, the compromise secured the decisive majority of the two parties in the elected institutions. The elections which took place every year were thus often just formal and, consequently, the participation of voters tended to be low. Even though there were no elections during the war, in its effects the

¹⁰⁴ Giustino, *Tearing down*, 32.

¹⁰⁵ Ibidem.

¹⁰⁶ Even though Giustino mistakenly dates the compromise to 1896 when it was actually only extended, her argument remains valid and inspiring. Cathleen M. Giustino, "Parteien, Politik, Demokratie und der Prager Kompromiss von 1896 [Political Parties, Politics, Democracy and the Prague Compromise of 1896]," in *Wien – Prag – Budapest: Blütezeit der Habsburgermetropolen. Urbanisierung, Kommunalpolitik, gesellschaftliche Konflikte, 1867-1918* [Vienna – Prague – Budapest: The Flourishing of the Habsburg Metropolises. Urbanisation, Municipal Politics, Social Conflicts, 1867-1918], ed. Gerhard Melinz and Susan Zimmermann (Wien: Promedia, 1996), 139.

¹⁰⁷ Ibidem.

compromise remained in force until 1918.¹⁰⁸ For all these reasons, the urban political elites of "inner Prague" entered the war in a rather contradictory position: while championing (and legitimizing) themselves as the last remaining voice of Prague's civic element, they were wary of representative politics and fearful of broader participation in political life and their political practices were thus quite exclusionary.

2.3 The Making of the Public Warehouse and the Municipal Shop: How Expert Knowledge Shaped the Emergence of Prague's Active Food Politics

"(...) our chief intention was to ensure that in the times of actual scarcity, the city would have sufficient reserves at hand, and would be able to make sure that the population would not suffer from starvation."¹⁰⁹ This statement made in January 1915 by an influential Prague local Old-Czech politician Edvard Baštýř was far from being isolated. Rather, it indicated a major break in the way how the urban political elites conceived of their attitude toward the city's populace. I argue here that as an attempt to prevent food shortage and its dreaded consequences – epidemics and social protest – Prague's urban political elites launched food politics that aimed at improving the lot of disadvantaged consumers. Paradoxically, it was those who did not enjoy the right to vote to the local political bodies who benefited most from this crucial change of policy. Consequently, in this section I illuminate how the local politicians of "inner Prague," in some cases even at the expense of their actual electorate, strove to meet the needs of those working-class and lower middle-class consumers who inhabited the "inner city" and eventually, also of consumers residing in the suburbs. Moreover, in both cases, another group who did not enjoy the right to vote – women – constituted a significant part of these consumers. The main argument I am making here is that shortly after the outbreak of the war, urban political elites in

¹⁰⁸ Ledvinka and Pešek, *Praha*, 518.

¹⁰⁹ Archiv Hlavního Města Prahy [Prague Municipal Archives, further: AHMP] (Prague), fond Magistrát hlavního města Prahy I. ["Prague's Magistrate I." Fund], Referát [Section] XVI, inventory no. 30, Minutes of the Provisioning Commission [zásobovací a přejímací komise], Minute dated January 8, 1915.

"inner Prague" thus departed from their previous exclusiveness and became to an unprecedented extent responsive to the needs of disenfranchised inhabitants of the agglomeration. The contemporary debates of expert agriculturalists precipitated this change.

The response of local authorities in "inner Prague" to the outbreak of war was fast. The decision had been taken before the expert debate about the Empire's agriculture's future started. Rather than expert advice, in this case it was the horizon of shared experience which guided this policy. As social historian Jiří Štaif suggests, a significant part of Czech society at the turn of the century still harbored deeply ingrained fears of famine and epidemics, even though they had no more first-hand experience with these phenomena.¹¹⁰ The last time when Bohemia's population experienced massive starvation was in mid-1840s. The effects of a bad potato harvest were exacerbated by low corn yields and taken together, they resulted in a famine, the last one in the 19th century Bohemia.¹¹¹ The experience of epidemics was more recent still and dated back to the 1866. Following the Austro-Prussian War, epidemics of cholera broke out and swept Bohemia.¹¹² At the local level, the last significant experience of epidemics was even more remote. In 1877-1878, Prague was affected by something close to an epidemics that was popularly associated with population movements triggered by the Russian-Turkish War.¹¹³ Ultimately, the expectation was that the spread of famine or epidemics would fuel social protest that the urban elites wanted to avoid at all costs.¹¹⁴ A number of articles on the experience of Napoleonic Wars in Bohemia that appeared in the Czech newspapers and described the scarcity

¹¹⁰ Jiří Štaif, "Peníze a společnost. Několik sond do vztahů mezi tradiční mentalitou a společenskou modernizací v české národní společnosti 19. století [Finance and Society. Some Thoughts on the Relationship between Traditional Mentality and Social Modernization in Czech Society in the 19th Century]," in *Finanční elity v českých zemích a Československu* [Financial Elites in Bohemian Lands and Czechoslovakia], ed. Eduard Kubů and Jiří Šouša (Prague: Dokořán, 2008), 28.

¹¹¹ Štaif, "Peníze a společnost," 28.

¹¹² Servác Heller, *Válka z roku 1866 v Čechách, její vznik, děje a následky* [The War of 1866 in Bohemia: Its Emergence, Events, and Consequences], (Prague: E. Beaufort, 1896), 335.

¹¹³ Giustino, *Tearing Down*, 81.

¹¹⁴ AHMP, "Prague's Magistrate I" Fund, Section XVI, inventory no. 29, Minutes of the Provisioning Commission, Minute dated August 5, 1914; "Praha v době válečné," *Věstník obecní Královského hlavního města Prahy* 21 (September 17, 1914): 281.

of food and spreading epidemics testified to the lively interest of the broad public in these issues.¹¹⁵ Even Prague's official Bulletin provided a lot of space both to the office of the City Physician publishing monthly reports on contagious diseases and to a historian working in city's archives who narrated to the readers a story about food shortage that plagued Prague a century ago.¹¹⁶ Symptomatically, at the Extraordinary Summit of the Czech Cities of the Kingdom of Bohemia that took place in the summer of 1915, the keynote speaker asserted that "every war is bound to bring about a great number of epidemies."¹¹⁷ The space of experience marked by fears of famine and epidemics, and ultimately of collective violence, thus shaped the horizons of expectation of the urban elites in the first weeks of the war; fighting the shortage, together with public hygiene measures, were among the chief ways how the municipal authorities strove to prevent these lurking dangers. Hence, even though during the war no elections took place, and the existing composition of the City council gave them clear majority, urban political elites grew increasingly concerned about the possibility of other, extra-institutional forms of participation that could emerge in case of food shortage or epidemics. These expectations, consequently, propelled the urban elites to reconsider the way how they related to the disenfranchised urban population. In effect, an active food politics of Prague's political elites emerged shortly after the declaration of the First World War.

In order to prevent food shortage, municipal authorities started stocking up on food. The food reserves were stored in municipal buildings which were thus converted into warehouses. However, the speed with which the local authorities decided to do so varied in different parts

¹¹⁵ A collection of articles by a cultural historian Čeněk Zíbrt was published later under the title *Česká kuchyně za dob nedostatku před sto lety* [Bohemian Cuisine in the Times of Shortage a Century Ago], (Prague: Neubert, 1917).

¹¹⁶ See e.g. "Měsíční zpráva o nakažlivých nemocech [Monthly Report on Contagious Diseases]," *Věstník obecní Královského hlavního města Prahy* 22 (January 14, 1915): 12; Eduard Šebesta, "Praha před sto lety [Prague One Hundred Years Ago]," *Věstník obecní Královského hlavního města Prahy* 22 (January 28 and February 11, 1915): 24-25 and 39-42.

¹¹⁷ "Mimořádný sjezd českých měst z království Českého [Extraordinary Summit of Czech Cities of the Kingdom of Bohemia]," *Věstník Svazu českých měst v království Českém* 5 (No. 3-4; August 31, 1915): 73-74.

of the agglomeration. Already on August 5, 1914, a special commission was summoned in "inner Prague" which organized buying of huge amounts of foodstuffs, with the intention to stockpile them for the time being and to flood the market with food, in case the prices rose too high.¹¹⁸ The urban political elites of "inner Prague" used their extensive networks to obtain food. Consequently, they bought foodstuffs not only in the western half of the Empire, but also in the Kingdom of Hungary and even imported them from abroad.¹¹⁹ The amount of reserves thus amassed was impressive. By January 1915, the municipal warehouses of "inner Prague" housed the equivalent of 330 full freight wagons of flour and large sums of potatoes and fats.¹²⁰ Municipal authorities of large middle-class suburbs surrounding "inner Prague," such as Královské Vinohrady/Königliche Weinberge or Karlín/Karolinenthal followed suit, storing the foodstuffs on the premises of local school buildings.¹²¹ Conversely, suburbs such as Vysočany/Wissotschan, Vršovice/Werschowitz or Nusle/Nusl whose budget was limited and that found it difficult to access credit had not in many cases started accumulating food reserves before winter of 1914.¹²² Hence, while the "inner city" and many well-off suburbs launched the active food politics almost immediately after the war had been declared, most of the workingclass and lower middle-class suburbs lagged behind.

¹¹⁸ The commission had initially at its disposal an already huge budget of 2,5 million Crowns. Later, its budget was repeatedly increased. *Aprovisace obce pražské za války a po válce. 1914-1922* [A Report on Wartime and Postwar Provisioning of Prague, 1914-1922] (Prague: Aprovisační ústavy hlavního města Prahy, 1923), 3. ¹¹⁹ For instance, in early 1915, the alderman and member of the Municipal Council E. Baštýř spent a week in Hungary, trying to obtain confidential information from Czech managers of local mills about the situation on the Hungarian wheat market. *Aprovisace obce pražské*, 18; AHMP, fond Archiv města Karlín ["Archives of the City of Karlín" Fund], Minute book of the city council [městská rada], Minute dated June 16, 1915; AHMP, fond Archiv města Nusle ["Archives of the City of Nusle" Fund], Minute book of the board of aldermen [městské zastupitelstvo], Minute dated April 28, 1916.

¹²⁰ AHMP, "Prague's Magistrate I" Fund, Section XVI, inventory number 30, Minutes of the Provisioning Commission, Minute dated January 8, 1915.

¹²¹ "Pomocná akce Královských Vinohrad [The Charitable Action by Královské Vinohrady]," Vinohradské listy
29.33 (August 14, 1914): 1; AHMP, "Archives of the City of Karlín" Fund, Minute book of the city council,
Minute dated August 8, 1914.

¹²² AHMP, fond Archiv města Vršovice ["Archives of the City of Vršovice" Fund], Minute book of the board of aldermen, Minute dated November 3, 1914; AHMP, "Archives of the City of Nusle" Fund, Minute book of the board of aldermen, Minute dated February 17, 1915; AHMP, fond Archiv města Vysočany ["Archives of the City of Vysočany" Fund], Minute book of the board of aldermen, Minute dated february 17, 1915; AHMP, fond Archiv města Vysočany ["Archives of the City of Vysočany" Fund], Minute book of the board of aldermen, Minute dated January 14, 1915.

Even though the decision to start buying foodstuffs had been in many cases taken even before the polemics between agriculturalists took off, the expert debate nevertheless had a crucial impact on the food politics of local authorities. The arguments used in the debate between expert agriculturalists entered the urban political elites' discourse and consequently, shaped their policies. In accordance with Viškovský's arguments, most members of the Old and Young Czech parties agreed that even though some degree of intervention by the state and municipal authorities was inevitable under the circumstances, it should not, however, fully replace the free market. Only when the free market fails to ensure efficient allocation, was it legitimate for the authorities to take full responsibility for the economy. For instance, a list of demands discussed at the November session of Svaz českých měst - an organization of Czech cities in Bohemia dominated by the representatives of Prague agglomeration – included almost all policies promoted by Viškovský in his pamphlets. The organization demanded that the state prohibit exports and start actively supporting food imports. Furthermore, the state was called to introduce a stricter control of price levels. In addition, another demand concerned gathering the statistical data, where there was much room for improvement, the organization claimed. Crucially, the representatives of Czech cities in Bohemia demanded that the state financially supports the municipal efforts to carry out provisioning of cities and grants them additional powers.¹²³ Regarding the economic policy, Czech liberals have already before the war advocated some form of state intervention. Nevertheless, the emphasis on the active role of municipalities was a novel element in their discourse.¹²⁴ In effect, it indicated a reconfiguration of the political language of Czech liberalism, triggered by a new experience of (anticipated) scarcity and by expert debates that engaged with it.

¹²³ "K otázce zásobování a drahoty [On the Question of Provisioning and Poverty]," Věstník Svazu českých měst v království Českém 4, (No. 7-8; February 28, 1915): 223.

¹²⁴ For the line of argument advanced by liberal Czech economists, see František Vencovský, *Dějiny českého ekonomického myšlení do roku 1948* [A History of Czech Economic Thought before 1948] (Brno: Masarykova univerzita, 1997), 48-140.

Apart from framing the discourse of urban political elites, the debate also shaped the expectations of most local politicians as to whether and when they should start selling the accumulated reserves to the consumers. Their fears regarding the danger of food shortage were corroborated by the pessimistic predictions of experts such as K. Viškovský. Therefore, the expectation that a more severe shortage could be expected in early months of 1915 informed the decisions of the urban political elites to leave the reserves in the warehouses for a longer period of time. Even though some municipal politicians who were not part of the coalition governing the "inner Prague" on multiple occasions attempted to convince their colleagues that the city should start distributing reserves immediately, and serious debates about this issue took place in September and December 1914, and in January 1915, all these attempts ended in failure.¹²⁵ In all cases, the arguments made by these politicians were turned down by the liberalconservative majority, whose members maintained that the reserves needed to be stored – as E. Baštýř put it – "until it becomes obvious that the shopkeepers are unable to offer consumers enough foodstuffs so that they would fully satisfy their demand."126 Consequently, it was only on March 24, 1915, when the municipality started selling the products that had been bought and stockpiled in the previous months. By that time, the shortage was so pronounced that many private shops often had nothing left to sell. Every resident of the "inner Prague" who did not have sufficient food reserves at home herself (or himself) had the right to buy products in the newly created chain of municipal shops.¹²⁷ This was a crucial development, because the municipality started competing with the shopkeepers, who were part of local politicians' electorate. In addition, the city resolutely declined the claims of local shopkeepers who

¹²⁵ Aprovisace obce pražské, 9 and 24; AHMP, "Prague's Magistrate I" Fund, Section XVI, inventory number 29, Minutes of the Provisioning Commission, Minutes dated September 22, 1914 and December 1, 1914; AHMP, "Prague's Magistrate I" Fund, Section XVI, inventory number 30, Minutes of the Provisioning Commission, Minutes dated January 8, 1915.

¹²⁶ AHMP, "Prague's Magistrate I" Fund, Section XVI, inventory number 30, Minutes of the Provisioning Commission, Minutes dated January 8, 1915.

¹²⁷ Aprovisace obce pražské, 24.

demanded that the municipality supply them from its food reserves.¹²⁸ Their protests against municipal shops also fell on deaf ears.¹²⁹ The urban political elites thus embarked on the road that led them toward more ambitious welfare policies which will be analyzed and put into context in the following chapter. So far it is sufficient to emphasize that these measures favored – first in anticipation and then in reality – the needs of consumers recruiting from the working class and lower middle classes, and particularly women of these social groups.

The significant discrepancy in provisioning of individual cities which was characteristic for Prague agglomeration in the first months of the war prompted the local politicians in the suburbs to seek cooperation with the elected representatives of the inner city. However, even though the agricultural experts such as K. Viškovský in their articles advised the cities to cooperate, these attempts that became increasingly vehement as the food shortage grew, initially did not bear fruit. In a statement from November 1914, for instance, a Prague's alderman emphasized that "the provisioning cannot be coordinated from one place and with a single goal."¹³⁰ Paradoxically, urban politicians' expectations of an imminent shortage that were strengthened by the same experts played a key role in their decision to refuse cooperation. Not even the authorities in "inner Prague" which has invested the largest sum of money in food reserves were sure that these reserves would be sufficient to cover the needs of the inhabitants until the next harvest if shortage was severe. Consequently, they were not willing to share neither the food reserves nor knowledge with the representatives of the suburbs which they viewed as competitors in a race for limited resources.¹³¹ This attitude remained constant during the first months of 1915, as well. Even when the municipal authorities of the most populous

¹²⁸ AHMP, "Prague's Magistrate I" Fund, Section XVI, inventory number 30, Minutes of the Provisioning Commission, Minutes dated January 8, 1915.

¹²⁹ Aprovisace obce pražské, 30.

¹³⁰ "Zásobování města v době válečné [Wartime Provisioning of the City]," Věstník obecní Královského hlavního města Prahy 21 (No. 21; December 3, 1914): 406.
¹³¹ Ibidem.

suburbs of Prague such as Smíchov/Smichow, Nusle/Nusl, Karlín/Karolinenthal and Žižkov/Zischkaberg directed their calls for cooperation to the representatives of the "inner city," they were turned down.¹³²

However, the attitude of the "inner city's" elected representatives started to change in the following months. The reason for this change lies in the fact that the urban politicians of "inner Prague" grew increasingly aware that food shortage in the suburbs fueled anger that found expression in the city centre. This tendency of central areas of the city to become stages of mass protest had a crucial symbolic dimension. Writing about collective violence in Budapest, Gábor Gyáni gets to the heart of this symbolic significance of the protesters' presence in the city centre:

"Here [in the heart of the city] the combination of wealth and power held sway over the spatial domain. These areas, characterized by wide and long thoroughfares and large squares, served as the scene of the political public events. ... When the same space was used 'unofficially' for similar purposes, the demonstrators were, in fact, seizing control of the space, 'as a medium for contesting power."¹³³

Arguably, the changes to Prague's urban fabric that took place in the 19th and at the outset of the 20th century were less pronounced than in Budapest and the city has retained much of its medieval spatial organization and pre-modern structures. Even though the material framework of the public space in Prague was thus structured differently than in Budapest, I would argue that Gyáni's interpretation remains illuminating in Prague's case as well, because its space nevertheless still served analogical representative functions. The presence of citizens from

¹³² AHMP, "Prague's Magistrate I" Fund, Section XVI, inventory number 30, Minutes of the Provisioning Commission, Minutes dated January 22, 1915.

¹³³ Gábor Gyáni, *Identity and the Urban Experience: Fin-de-Siécle Budapest* (Boulder, CO: East European Monographs, 2004), 146.

Prague's suburbs protesting against food shortage thus challenged those who were in power, that is, the urban political elites of "inner Prague."

Local politicians in Prague therefore attempted to create an institution that would enable them to avoid competition for resources without having to share the reserves. Consequently, in the second half of 1915, the representatives of cities that formed Prague agglomeration entered negotiations, at which other Czech cities in Bohemia also participated. These talks led to the establishment of *Česká komunální ústředna hospodářská* [The Joint Enterprise of Czech Municipalities].¹³⁴ The purpose of the company was to buy food both on the domestic and foreign market and then to divide it between member cities according to the agreed key.¹³⁵ Furthermore, in early 1917, a joint provisioning committee of the cities in the Prague agglomeration was set up, which served as a forum that enabled negotiations between these actors.¹³⁶ Thus, these two cases demonstrate that by the end of 1915, and increasingly in the following years of the war, the urban political elites started to cater to the needs of the citizens of Prague's suburbs, that is, of another group which could not influence the "inner city's" representatives' policies by exercising their right to vote.

To sum up, in this chapter, I showed how agricultural scientists reacted to the outbreak of the First World War by a series of unprecedented interventions into the public space. Concerned about the potentials of the Empire's agriculture, almost immediately after the war had been declared these experts suggested that the consumption would have to be severely

¹³⁴ "Návrh na zřízení České komunální ústředny hospodářské pro království České [Proposal to Establish a Joint Enterprise of Czech Cities in the Kingdom of Bohemia]," *Věstník Svazu českých měst v království Českém* 5 (No. 5-6; December 31, 1915): 137-38.

¹³⁵ "Ustavení České komunální ústředny hospodářské [The Joint Enterprise of Czech Cities Established]," Věstník Svazu českých měst v království Českém 6 (No. 1-2; March 1, 1916): 29-32; "K zahájení činnosti České komunální ústředny hospodářské pro království České [The Joint Enterprise of Czech Cities Starts Business]," Věstník Svazu českých měst v království Českém 6 (No. 1-2; March 1, 1916): 48.

¹³⁶ "Porada zástupců Velké Prahy o společném postupu v otázkách zásobovacích [Debate of Representatives of Prague Agglomeration on the Common Policies Regarding the Questions of Provisioning]," Věstník obecní Královského hlavního města Prahy 24 (No. 7; April 6, 1917): 102; AHMP, "Archives of the City of Karlín" Fund, Minute book of the board of aldermen, Minute dated March 30, 1917.

regulated or the country would have to face food shortage. Deeply aware of the fact that forecasts shape the development they were themselves predicting, the main question on which they disagreed was what kind of expectations should be created in the public. However, by 1915 the debate had grown into polarized polemics which addressed both the underlying theory and the proposed strategy. I argued that while the seemingly optimistic forecasts of J. Stoklasa informed the discourse and to some extent, the practices of the central authorities, the deliberately pessimistic predictions of K. Viškovský shaped the horizon of expectation of urban political elites and, consequently, influenced the pace in which their food politics was implemented. In this chapter I thus told a story about knowledge produced by expert agriculturalists and the way how it shaped the policies at a local level by forming the actors' horizons of expectation.

3. "Bodies Are More Than Mere Motors": Competing Discourses of the Body in Nutritional Science and the Turn of Prague's Urban Elites toward Welfare Policies, 1915-1917

"DOKTOR [ganz erfreut]: ... Sehen Sie: der Mensch, seit einem Vierteljahr ißt er nichts als Erbsen; bemerken Sie die Wirkung, fühlen Sie einmal: Was ein ungleicher Puls! Der und die Augen!" (Georg Büchner, Woyzeck)

In his unfinished theatre play *Woyzeck* written in the 1830s, young German physician and playwright Georg Büchner paints a caricature of a scientist who conducts his physiological experiments on humans, reducing them not only to research objects but also to objects of humiliation. In Woyzeck the author tells us a story about science as an endeavor that, using formally rational means, leads to irrational and inhuman ends. In his socially critical piece, Büchner thus anticipated a sensibility that became widespread more than one century later.¹³⁷ The man who served as the model for the character of the Doctor was none other than Justus von Liebig, one of the founders and main authorities of nutrition science.¹³⁸ This new body of knowledge arose - with a significant contribution of Liebig - in the course of the 1840s. As historians of science Harmke Kamminga and Andrew Cunningham remark in the introductory essay to their volume The science and culture of nutrition, 1840-1940, the emergence of nutrition science was intimately linked with the rise of the modern nation state and its broad ambition to control the biological state of the population, in order to efficiently realize economic, military and social goals.¹³⁹ On few occasions was it more obvious that nutrition science had a clear biopolitical agenda, than at the time of First World War when the states massively intervened into the economy in order to regulate food consumption.¹⁴⁰ Focusing on wartime Bohemia, increasingly struggling with food shortage, this chapter traces how

¹³⁷ See Theodor Adorno and Max Horkheimer, *Dialectic of Enlightenment* (London: Verso, 1986), 3-13.

¹³⁸ Otto Krätz, "'... ja die Erbsen, meine Herren ...': Friedrich Johann Woyzeck, Georg Büchner, Justus Liebig und Alban Berg," *Kultur & Technik* 33 (No. 4; 2009), 34-39.

 ¹³⁹ Harmke Kamminga and Andrew Cunningham, "Introduction," in *The Science and Culture of Nutrition, 1840-1940*, ed. Harmke Kamminga and Andrew Cunningham (Amsterdam and Atlanta, GA: Rodopi, 1995), 6-7.
 ¹⁴⁰ Robyn Smith, "The Emergence of Vitamins as Bio-political Objects during World War I," *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences* 40 (Sept., 2009), 179-189.

nutritional experts who promised to tackle this problem forcefully intervened into the public debates and how the knowledge they produced started guiding the politics of food of the urban political elites, and led to unexpected consequences.

At the beginning of the 20th century, the old paradigm in physiology, framed by the physical laws of thermodynamics and imagining the body as a modern engine, encountered serious challenges. An emerging paradigm, supported by the evidence provided by the newest biochemical research, suggested that the body should rather be understood as a self-governing system. In this chapter I argue that in Czech nutritional science, both of these rival paradigms were present and that their opposition gained an enormous importance during the First World War. Diverse actors attempted to use knowledge produced by nutritional sciences in order to formulate a biopolitics that would allow them to steer by policies a society plagued by a gradually increasing shortage of basic foodstuffs. Thus, the expertise of nutritional scientists found its way into political practice during the war. The crucial point is that while the first paradigm framed and legitimized the politics of food of the state administration, the knowledge produced by those who challenged it informed the biopolitical policies of the Prague urban political elites.

This had two important effects. Firstly, the war brought a major change of the social policy pursued by the Prague urban elites. Contrary to the received interpretation, Prague municipal authorities thus already before the end of the Empire embarked on an ambitious welfare programs, marked by huge investments and a massive intervention of the political power into the economic life. Secondly, in the context of a rapidly spreading scarcity in the last two years of the war, the different interpretations of starving embraced by the imperial authorities on the one hand and the municipal authorities (and part of the urban public) on the other hand, fueled a conflict between these two political actors. This conflict contributed to the collapse of the social consensus in the province and, consequently, to the dissolution of the

Habsburg Empire. Ironically, the broad definition of starvation promoted by the municipal authorities also created expectations of the public that the urban political elites themselves eventually failed to satisfy. Thus, even though this approach was at first used to justify the municipal authorities' policies, it ultimately contributed to their de-legitimization. The new elites that replaced them recruited partly from the ranks of the experts who had previously framed the urban policies.

3.1 Popularizing the Human Motor: The Public Role of Nutrition Science in Wartime Bohemia

Physiology emerged as a science that promised to formulate credible claims about human organism and its functioning. In the course of the second half of the 19th century, it rose to unprecedented prominence, this development bearing witness to its integrative and innovative potential.¹⁴¹ The images produced by physiologists framed the thinking of labor physiologists, nutrition scientists and of representatives of other disciplines in the making that engaged with the complex linkage between human bodies, nutrition and labor. The historian of medicine Karl Rothshuh identified three different ways, how physiologists perceived the human body in the 19th century: the "technomorphic," imagining the body as a mechanical machine, then the "mechanomorphic," envisaging the body as a modern motor, and finally, the "biomorphic," conceiving of the human body as an autonomous system.¹⁴² The following two sections deal with the debate between the supporters of the second and third notion of human body that took place among Czech experts that started in 1915 and continued to the early stages of the World War I.

¹⁴¹ Jakob Tanner, *Fabrikmahlzeit: Ernährungswissenschaft, Industriearbeit und Volksernährung in der Schweiz 1890-1950* (Zürich: Chronos, 1999), 60.

¹⁴² Karl Rothshuh, *Geschichte der Physiologie* (Berlin-Göttingen-Heidelberg: Springer, 1953). Quoted in Tanner, *Fabrikmahlzeit*, 65.

In his classical study, Anson Rabinbach demonstrated how after 1850, the metaphor of human body as a modern motor gradually gained ground in theoretical, and especially, in applied natural and life sciences. The development of physics, and particularly, the discovery of the first law of thermodynamics gave a decisive impulse to this change. This physical law, formulated in 1847 by Herrmann von Helmholtz, stated that within an isolated whole, energy can neither be destroyed nor created. However, it can assume many forms and be transformed from one form to the other within a certain domain. Consequently, drawing on the first law of thermodynamics, an increasing number of scholars started to analyze nutrition and labor in terms of physics and chemistry.¹⁴³ Among the nutrition scientists, metabolism started to be perceived as a process in which chemically conserved energy turns into labor. Thus, as the social historian Jakob Tanner puts it, a new "understanding of human bodies came about that logically integrated their nutrition, labor and social utility. The first law of thermodynamics on conserving energy provided a theoretical foundation for research on how the energy chemically contained in food transformed through metabolic processes into kinetic energy (warmth and labor). The human body was understood as a matrix of input and output. On the input side, nutrition provided the necessary energy from which the body produced mechanical power on the output side."144 Furthermore, the second law of thermodynamics proposed in 1867 by Rudolf Clausius enabled the scientists to rethink the notions of overwork, fatigue, and exhaustion, which started to be hotly debated from the 1870s on.¹⁴⁵ From this perspective of physical and chemical reductionism, there seemed to be little or no difference between human bodies and modern motors. Indeed, both needed to be supplied with an optimal amount of appropriate fuel to run efficiently. By regarding the human body as a type of modern engine, scientists stressed the heteronomy of the organism and the ambition to increase its efficiency in

¹⁴³ Anson Rabinbach, *The Human Motor: Energy, Fatigue and the Origins of Modernity* (Berkeley and Los Angeles: Basic Books, 1990), 3-4.

¹⁴⁴ Tanner, *Fabrikmahlzeit*, 30. English translation in Kučera, *Rationed Life*, 17-18.

¹⁴⁵ Tanner, *Fabrikmahlzeit*, 65.

performing labor. For those who saw it as a modern motor, human organism was a heteronomous labor power that could be submitted to rationalizing measures.¹⁴⁶

In the Czech lands, this approach soon took root and in the last decades of the 19th century, it became a subject of various popular lectures.¹⁴⁷ For instance, František Mareš, who was later to become one of the most prominent physiologists, lectured in 1889 on rational nutrition. Reacting to the recent trend of a significantly rising standard of living¹⁴⁸, Mareš dissuaded his audience from spending the additional income on food. Instead, his readers were requested to direct their eating habits according to the rational principles promoted by nutrition science, decreasing their overall consumption and particularly, limiting their needs for meat.¹⁴⁹ After the outbreak of the First World War, however, nutrition science gained a new importance. As the previous chapter has shown, soon after the war had begun, both experts and the large public in the Austro-Hungarian Empire started to debate whether the domestic production had the necessary capacity to cater for the needs of the army and of the 'home front.' Almost immediately after the declaration of the war, the Austrian state started to intervene in the economy, and the urban elites followed suit. Already in the fall of 1914, imperial authorities introduced measures that were targeted at restricting consumption and attempted to counter the rising prices of foodstuffs. From 1915 on, the authorities went even further and started, in a piecemeal manner, to set up a centralized mechanism of distribution.

¹⁴⁶ Tanner, *Fabrikmahlzeit*, 56.

¹⁴⁷ František Mareš, *O výživě člověka: Dvě veřejné přednášky* [On Human Nutrition: Two Popular Lectures] (Prague: F. Mareš, 1889).

¹⁴⁸ The major change in the standards of living in Bohemia that took place in the context of the rapid economic growth at the turn-of-the-century is confirmed by the ethnological studies. The ethnologists actually demonstrated that the improvement of the living standards affected also a significant part of the Bohemian working class, which gradually started to adopt certain elements of a middle class life style. See, above all, Jarmila Šťastná, Antonín Robek, and Mirjam Moravcová, ed., *Stará dělnická Praha: život a kultura pražských dělníků 1848-1939* [The Prague Working-Class of Old. Life and Culture of Workers in Prague, 1848-1939], (Prague: Academia, 1981), 152-258.

¹⁴⁹ Mareš, *O výživě člověka*, 5.

The historian Rudolf Kučera has recently set out on a task to analyze how discourses produced by certain scientific fields affected the everyday life of the workers in this part of the Habsburg Empire and how they shaped the working-class identity. Significantly, Kučera reveals the importance of nutritional science and physiology for the Austrian state's food politics for which it provided both guidance and justification. Yet, his account remains problematic. Not only he presumes that these scientific fields were homogenous, but also, and in connection to this, almost completely neglects local, non-state actors involved in food politics, assuming that their actions were informed by the same theory and thus analogous to those of the central authorities.¹⁵⁰ Yet, in her essay, the historian of biomedicine Harmke Kamminga clearly demonstrates that the early years of the existence of nutritional science were marked by a struggle between multiple projects leading to various political ends.¹⁵¹ She thus reminds us that it is crucial to bear in mind that nutrition science was never a homogenous body of knowledge.

Even though the approach to the human body working with the image of the human motor had to face significant challenges posed by the new research (which will be discussed further on), a historian of biochemistry, Mikuláš Teich has argued that it did not recede at the same time in all contexts. In particular, German scholars continued to subscribe to this approach for a significantly longer time than their British counterparts.¹⁵² Kučera remarks that the research conducted in Bohemia in nutritional science before and during the war was to a large extent indebted to the German scholarship, especially to the theories developed by the "Munich school" around Carl Voit and, from among his students, by Max Rubner.¹⁵³ Even though this

¹⁵⁰ Kučera, *Rationed Life*, 7 and 15.

¹⁵¹ Harmke Kamminga, "Nutrition for the People, or the Fate of Jacob Moleschott's Contest for a Humanist Science," in *The Science and Culture of Nutrition, 1840-1940,* ed. Harmke Kamminga and Andrew Cunningham, 15-47.

¹⁵² Mikuláš Teich, "Science and Food during the Great War: Britain and Germany," in *The Science and Culture of Nutrition*," ed. Harmke Kamminga and Andrew Cunningham, 213-234.

¹⁵³ Kučera, Rationed Life, 22-23.

chapter will demonstrate that there was more diversity than Kučera allows for, it is true that some authors did accept these theories wholesale. Most significant among these scholars was definitely Julius Stoklasa. It is worthwhile to reiterate here that apart of the Bohemian Agricultural Council, Stoklasa held a professorship at the Czech Technical University in Prague. Crucially, these institutions had the reputation of alternative research centers, providing jobs for researchers who failed to get coopted by the scientific establishment at the faculties of the Prague (Czech) University.¹⁵⁴ This academic affiliation, I argue, is crucial for understanding why the most vocal critics of Stoklasa's arguments about nutrition during the war recruited from the Prague University.

The previous chapter has shown that Stoklasa started to flood the book market with articles and pamphlets on the agriculture of the Empire and its capability to cover the domestic consumption. I argued that Stoklasa - an experienced agricultural scientist - was from the outset well aware that this was not the case. Consequently, his main contention was that the domestic production was able to meet the country's needs, but only as long as the consumption was organized and limited. In the course of the debate with his critics, Stoklasa argued nutrition science was to serve as a rational guide in this effort. Drawing on Rubner, Stoklasa assumed that the value of different foodstuffs for the body is identical with the energy they provided, that is, with their measurable caloric value. Rubner's "law of isodynamic equivalence," indicated that the carbohydrates, proteins and fats were to a large extent interchangeable, as thus also were the different foodstuffs in which they were contained. Stoklasa attempted to find the minimal possible energy intake that would allow the bodies to stay alive and perform assigned tasks. Thus, using biochemical methods, nutrition science promised not only to

¹⁵⁴ Janko, Vědy o životě, 603.

rationally establish the most effective energy input equivalent to the labor output of the human motor, but also, above all, to find the most efficient fuel.¹⁵⁵

While Stoklasa and some Czech scholars embraced the theoretical starting points of German nutrition scientists, however, they sought to arrive at different empirical results. They published their studies in the context of the growing scarcity of foodstuffs. Consequently, they sought to provide the authorities with an advice on how to extend most widely the spectrum of resources that could be made available as foodstuffs and how to distribute these resources among the domestic civilian consumers in a manner that would enable them to work further in the most efficient manner. Stoklasa wrote his major work, Výživa obyvatelstva ve válce! [Feeding the Population at War], in 1916 when meat was already unavailable outside of the black market, and bread and potatoes were gradually becoming scarce goods. Consequently, Stoklasa argued that, firstly, the total number of calories necessary to keep to human motor running was actually lower than had been previously assumed. Not only could "the ability to work be maintained even when the supply of food does not meet the normal amount," but "limiting the consumption to the amount necessary to keep the body capable of work and avoiding food that is excessively appetizing or is served in too copious amounts facilitates the digestion, speeds up the metabolism and is thus advantageous for human health."¹⁵⁶ He thus made the case for lowering the food rations, arguing that constraining the consumption to the necessary minimum has beneficial health effects.

Secondly, Stoklasa suggested that the unavailable foodstuffs were either to a large extent unnecessary for the human organism, such as meat, or could be replaced by other goods. Departing from the prewar norm, he claimed that 60% of the daily amount of protein suggested by Voit represented the optimum energy intake, and 30% the minimum necessary to sustain the

¹⁵⁵ Julius Stoklasa, *Výživa obyvatelstva ve válce!* [Feeding the Population at War!] (Prague: Stoklasa, 1916).

¹⁵⁶ Stoklasa, Výživa obyvatelstva, 11.

human motor running without major difficulties. Stoklasa recommended that the food rations should "optimally oscillate between these two extremes."¹⁵⁷ Furthermore, potatoes and bread could be replaced by other sources of carbohydrates and proteins. Stoklasa's suggestions included various kinds of vegetables, but also hay or moss. Here, it is worthwhile to recall the reflections on normativity by the French historian of medicine Georges Canguilhem. In his 1943 work *The Normal and the Pathological* Canguilhem argued that "the concept of norm (...) cannot be reduced to an objective concept determinable by scientific methods."¹⁵⁸ Since they could not be established objectively, norms were thus constructed. Thus, Stoklasa strove to provide the authorities with norms regulating what goods could be used as fuel to keep the human motors running, and how to use their available impetus efficiently.

3.2 From an Engine toward a System: The Challenges of Food Shortage and the Rise of a Competing Metaphor of the Human Body

The metaphor of the human motor and its impact on the wartime food policies of the Austrian authorities, however, is only one part of the story. In stressing the rise of this mechanistic reductionism in the second half of the 19th century, both Rabinbach and Kučera neglect the concomitant substantial shift in the research interest that marked physiology in general, and nutrition science in particular. This shift that started taking place in the later decades of the 19th century provided findings that challenged the then dominant paradigm and paved the way for a more complex understanding of the human body. In his analysis of the linkage between nutrition science and industrial modernity, Jakob Tanner traces the roots of the new way of imagining the human body to the works of Claude Bernard. The French physician analyzed the body as a "self-regulating system," thereby replacing a "heteropoietic-technical"

¹⁵⁷ Stoklasa, *Výživa obyvatelstva*, 12.

¹⁵⁸ Georges Canguilhem, *The Normal and the Pathological*, (New York: Zone Books, 1991), 228.

with an "autopoietic-biological" perspective.¹⁵⁹ Furthermore, in the last quarter of the 19th century, the notion of the regulation of the organism gained currency. It tackled the crucial problem of how could the organism on its own maintain its own existence. Consequently, by the 1880s, the approach drawing on the laws of thermodynamics was already facing serious challenges.¹⁶⁰

In the first decade of the 20th century, the agreement that the modern motor was an appropriate metaphor to describe the functioning of organisms began to dissolve.¹⁶¹ Firstly, the reductionist approach was challenged by the emerging broad current of neo-vitalism, which promised scholars to make sense of developments for which the mechanicist approach could not yet provide convincing explanations.¹⁶² Secondly, new discoveries indicated that there were factors crucial for the human nutrition which could not be convincingly grasped if they were perceived through the lens of their caloric value. In this respect, Kamminga and Cunningham underline the importance of the discovery of essential amino acids that suggested, contrary to the received "law of isodynamic equivalence," that different proteins have a different nutritional value.¹⁶³ Furthermore, the discovery of vitamins after the turn of the century (and the identification of their absence as the cause of certain illnesses) clearly showed that in order to understand the functioning of the organism, it was imperative to go beyond the mere transformations of energy.¹⁶⁴ The role of hormones, discovered at about the same time, had a similar effect. Consequently, Tanner remarks, "the point was no longer to refill the 'tank' of the human motor or to provide it with exchange parts, but rather to overcome insufficiencies of a complex self-regulation of physiological processes." In physiology, the human body was thus

¹⁵⁹ The terms Tanner uses are those of the historian of science G. Canguilhem.

¹⁶⁰ Tanner, *Fabrikmahlzeit*, 69-70.

¹⁶¹ Kamminga and Cunningham, "Introduction," 9.

¹⁶² Tanner, *Fabrikmahlzeit*, 69.

¹⁶³ Kamminga and Cunningham, "Introduction," 9.

¹⁶⁴ Smith, "The Emergence of Vitamins," 180.

"less and less understood in terms of specialization and division of labor between organs. On the contrary, it was conceived of as an autonomous system marked by complex repercussions between its parts, endowed with functions which controlled other functions, on the basis of particular information."¹⁶⁵ To sum up, for many, the metaphor of the human body as a modern engine was no longer convincing. Instead, an image of a system started to gain ground.

A number of influential Czech physiologists, such as František Mareš (1857-1942), and Vladislav Růžička (1870-1934) and their students Edward Babák (1873-1926), and Jaroslav Kříženecký (1896-1964), embraced elements of this systemic notion of the body. In 1895 Mareš assumed the chair of full professor at and the director of the Institute of Physiology at the Faculty of Medicine of the Prague (Czech) University, and Růžička directed the Institute of general biology at the same Faculty. Significantly, they were thus all based at the (Czech section of) Prague University, that is in the main center of the Czech research in life sciences, with which Stoklasa competed. Even though all these scholars had their doubts about the mechanistic conception of body already before the war, they voiced them only in the specialized articles. The outbreak of the war brought a radical break in this respect. All these authors started to publish numerous popular articles and pamphlets which challenged this interpretation.

In a nutshell, in the case of Mareš and Babák, their criticism drew on neo-vitalism, and had conservative ideological underpinnings. Mareš - one of the prominent promoters of neovitalism in the Czech context (and later one of the key authors of the local radical right) - argued in a pamphlet published early in 1915 that "life" should not be constrained by regulations emanating from the state through centralized food distribution: "The norms that prescribe a certain diet are not more that vanity. Life does not let itself to be bound by orders. It regulates

¹⁶⁵ Tanner, *Fabrikmahlzeit*, 70.

itself on its own and it will find out what it needs."¹⁶⁶ Even though eating meat in excess is detrimental and some of it can be replaced by sugars, Mareš argued, meat was still an indispensable part of the human diet. Mareš supported his arguments by referring to a large number of experiments that had been carried out in other laboratories, abroad. Repeatedly he invoked the research by Italian physiologists. These authors thought through the structural problems that were characteristic for the Italian state building, trying to address the differences between the North and the South and between urban and rural areas. Studying the nutritional habits of peasants in the various regions, these scientists had much to say about malnutrition.¹⁶⁷ For instance, Mareš cited the monograph of the physiologists Pietro Albertini and Felice Rossi, based at the University of Bologna. These authors carried out research on dietary situation of peasants in the mountainous Abruzzo region. They argued that a diet that consisted mostly of corn polenta was low in proteins, fats, and sugar. It thus resulted in malnourishment that significantly impaired the physical strength of the peasants and thus their value for the military. However, their research suggested that when the peasants were given even a small amount of meat on a regular basis, their physical state started to improve.¹⁶⁸ For Mareš, the Italian research was a clear proof that meat was an indispensable part of the diet.

Babák, writing in 1917, claimed that the diet provided by the state in the form of food rations should be tailored to the needs of particular social groups. Thus, biologizing the social differences, Babák argued that the manual workers could maintain themselves alive as vegetarians, while the middle classes had a natural need to consume meat. In laying out the argument, Babák drew on his previous research on the adaptation of amphibians. When fed with herbs, their intestines grew longer than in those who enjoyed all-meat diet. Consequently,

¹⁶⁶ František Mareš, *Výživa člověka ve světle fysiologie* [The Human Nutrition in the Light of Physiology] (Prague: Otto, 1915), 6.

 ¹⁶⁷ Gianfranco Donelli and Valeria Di Carlo, *La sanità pubblica italiana negli anni a cavallo della Prima Guerra Mondiale* [The Italian Public Health in the Years of the First World War], (Rome: Armando, 2016), 39-46.
 ¹⁶⁸ Mareš, *Výživa člověka*, 47.

Babák suggested, also humans who are used to eating meat adapt in a similar way.¹⁶⁹ Furthermore, Babák stressed that the energetic content of foodstuffs is only one category that makes it valuable. Equally important as the quantity, he argued, is also the its chemical composition of food and its quality. How food is prepared, served, and how it tastes plays an immense role.¹⁷⁰ The metaphor of a human motor that consumes fuel was thus less convincing for Babák than for Stoklasa. Contra it, he stressed that humans are, in fact "systems that are much more than machines."¹⁷¹

Růžička's views on nutrition were framed by his theories in physiology. While he retained a mechanistic approach ultimately stressing the chemical determination of life processes, Růžička nevertheless attempted to complement this view with neo-vitalist notions. His concepts and even his research program could thus draw both on Hans Driesch and his neovitalism and on the experimental methods of developmental mechanics (Entwicklungsmechanik) as promoted by Wilhelm Roux.¹⁷² From the early years of his career, Růžička carried out research coloring bacteria, and on this empirical material, he eventually developed his theory of "morphological metabolism of protoplasm," most concisely exposed in a paper published in 1906.¹⁷³ Elaborating on Driesch's notions of equipotentiality and selfregulation, and anchoring them in the chemical functioning of metabolism, Růžička argued that the structure of the living matter (protoplasm) is subject to permanent changes, sparked by the variations in its metabolism. Cell structures thus were not stable, but were mere temporary states in the endless flow of protoplasm which could be ultimately described in chemical terms.¹⁷⁴ By

¹⁶⁹ Edward Babák, *Výživa rostlinami* [Vegetable Diet] (Prague: Topič, 1917), 17.

¹⁷⁰ Edward Babák, Výživa rostlinami [Vegetable Diet] (Prague: Topič, 1917), 24.

¹⁷¹ Edward Babák, *O proměnách energií u živých těl* [On Transformations of Energies in the Human Bodies] (Prague: Vilímek, 1917), 32.

¹⁷² Jan Janko, *Vznik experimentální biologie v Čechách, 1882-1918* [The Emergence of Experimental Biology in Bohemia] (Prague: Academia, 1982), 70 and 74.

 ¹⁷³ Vladislav Růžička, Morfologický metabolismus živého protoplasmatu [Morphological Metabolism of the Living Protoplasm] (Prague: Česká akademie císaře Františka Josefa pro vědy, slovesnost a umění, 1906).
 ¹⁷⁴ My reading of Růžička is heavily indebted to the interpretation of his work in Jan Janko's seminal studies. See e.g. Janko, Vědy o životě, 32.

coincidence, since the early 1910s, Růžička and his students had been carrying out research on the effects of starvation on organisms and eventually extended their research program to physiological causes of aging. Růžička eventually developed a theory that explained aging by the "hysteresis of protoplasm" which played an important role in his explanation of the effects of starvation on human bodies.

The professor of biology and experimental morphology entered the debates most powerfully in 1916, by publishing in a popular science series his essay bearing the title *Hlad*. Jeho působení na organismus a děje životní [Hunger: Its Effect on Organism and Life Processes].¹⁷⁵ Engaging with the definition of starvation, Růžička took issue with a significant part of the existing scholarship encapsulated in Stoklasa's writings. Růžička used the systemic notion of metabolism drawn from the Prague physiologist Ewald Hering (Hering himself was inspired by Claude Bernard). Hering saw metabolism as a duality of processes of the creation and dissolution of the living matter (and which he called assimilation and dissimilation, respectively). The body regulated itself toward the optimal state, that is, toward a balance between the dissimilation and assimilation. If assimilation exceeded dissimilation, the living matter expanded or started storing the superfluous resources. Conversely, when dissimilation exceeded assimilation, the organism started starving. In effect, the organism started to consume itself. Thus, drawing on Hering's concepts, Růžička challenged the definition of starvation that limited it only to insufficient calorie intake. Instead, Růžička offered a much broader definition of starvation which included all the cases when the body lacked not only the energy needed to carry out labour, but any of the resources necessary for its optimal development. In this context, Růžička argued that there were actually two kinds of starvation. What he termed "full starving" came about when the body lacked the necessary quantity of calories. "Partial starving," on the

¹⁷⁵ Vladislav Růžička, *Hlad. Jeho působení na organismus a děje životní* [Hunger: Its Effect on Organism and Life Processes] (Prague: Vilímek, 1916).

contrary, occurred always when the nutrition – albeit in sufficient quantity – lacked some of the vital biochemical elements necessary for healthy development. Crucially, the effects of the partial starvation on the human body could be as destructive as in case of the full starvation. Consequently, Růžička made a case for a more sensitive understanding of starvation that took also other factors, such as essential amino acids and vitamins, into consideration.

Trying to explain the causes of death from starvation, Růžička suggested that one of the reasons can be found in self-poisoning by certain, unknown toxins. These toxins that are produced by the metabolism of a starving person, accumulate in the body and eventually, they cause lethal damage to the nerve system.¹⁷⁶ Moreover, to the two notions proposed by Hering, Růžička added what he had previously called the "hysteresis of protoplasm" as the third process in metabolism. According to this theory that had been developed by Růžička in previous years, functioning metabolism generated chemical substances which could not be assimilated by the organism and were consequently stored in the body and thus slowed down its working. Starvation increased the amount of these substances in the metabolism and thus led to a faster aging. Consequently, by provoking or accelerating these two detrimental processes, a prolonged starvation could lead to death.

In 1916, when foodstuffs were becoming scarce in urban areas of Bohemia, Růžička's argument could be read as a direct criticism of the state's food policy and of the theory that was guiding it. In fact, Růžička made this connection explicit by pointing to the growing shortage, and its possible destructive effects. Firstly, the substitutes for foodstuffs provided by the authorities had, according to Růžička, a negative effect on the body, which was unable to process it properly. Secondly, Růžička argued that repeated temporary starvation had more

¹⁷⁶ This was a line of argument that had been developed further by Jaroslav Kříženecký, in his *O smrti hladem a porušování organismu nedostatečnou výživou* [On Death from Starvation and Impairment of the Organism by Malnutrition] (Praha: Otto, 1918).

destructive effects, than the permanent starving, as the permanent changes affected the selfregulation of the organism. Consequently, the occasional breakdowns of the centralized distribution and the concomitant starving had serious consequences: "These findings are of imminent importance for humans as well, because repeated, long-term starvation severely impairs both the adult, and even more, the growing organism. Whatever its causes, it is always true that the higher the scarcity of foodstuffs, the more pressing is the danger of starvation of the popular and middle classes, and especially, of children." Indeed, Růžička singled out children and women as the groups which were most affected by the consequences of starving.¹⁷⁷ Above all, however, Růžička made a case for a rather different food politics than Stoklasa. Růžička underscored that the main goal should be to provide not merely the necessary number of calories, but to ensure the optimal quality of nourishment: "In order to prevent the organism from starving, either fully or partially, it is not sufficient to provide it with nourishment that is sufficient in terms of its volume, its quantity, but the main emphasis has to be on its quality. If we want health [of the population] to be preserved, it is imperative to supply it with the most diversified nutrition. Any pressure, forcing [the humans] to eat monotonously, impairs the body and causes deviations."178

In this context, Růžička offered a starting point for neo-Lamarckian eugenicists who could then conjure up an image of deformities and illnesses that were caused by starving. The danger consisted in the fact that these could be then passed on the offspring. Conversely, the source of hope rested in the possibility to regenerate the affected individuals by a social reform. Thus, this perceived danger of impairment of organisms caused by starvation could be described as a eugenic issue. This was a direction that both Růžička and Kříženecký have taken. (Their calls along these lines will be analyzed in more detail in the following chapter.) In these

¹⁷⁷ Růžička, *Hlad*, 31.

¹⁷⁸ Růžička, *Hlad*, 42,

pamphlets published during the war, the systemic concept of the body thus entered the public sphere and challenged and even radically contested the theory that underpinned the food politics of central authorities. It was soon embraced by the actors operating at the local level, who used it for a wide variety of purposes, which will be discussed in the following section.

3.3 Quality over Quantity: Shaping the Biopolitics of Prague Urban Political Elites through Medical Expertise

Before 1914, Prague urban political elites did not play an active role in deliberately shaping the living environment of and in catering for the welfare of the city's inhabitants through a planned intervention. Already some contemporary experts made it clear that Prague's local authorities did not see social policies as their key objective. According to a report written for the German *Verein für Socialpolitik*, the measures for increasing the welfare in Prague were carried out "only reluctantly and with a great hesitation" and "only when the pressure of the facts forced [the authorities] to do so."¹⁷⁹ Gerhard Melinz and Susan Zimmermann provide the substance for this argument in their comparative study of social policies pursued by municipal authorities in Budapest, Vienna and Prague. They demonstrate that social policies of Prague urban elites were substantially less ambitious in comparison to Vienna and especially to Budapest of the late 1900s. The administrative and political fragmentation of the Prague agglomeration, with suburbs enjoying the status of independent cites with separate governments and budgets, further deteriorated the situation.¹⁸⁰ Instead of promoting welfare of the urban dwellers, Prague political elites which recruited since the 1890s almost exclusively from the ranks of the liberal conservative ("Old Czech") and national liberal ("Young Czech") parties,

 ¹⁷⁹ Gerhard Melinz and Susan Zimmermann, "Die aktive Stadt. Kommunale Politik zur Gestaltung städtischer Lebensbedingungen in Budapest, Prag und Wien, 1867-1914 [The Active City. Municipal Politics aiming at Formation of Conditions of urban Life in Budapest, Vienna and Prague]", in *Wien – Prag – Budapest: Blütezeit der Habsburgermetropolen. Urbanisierung, Kommunalpolitik, gesellschaftliche Konflikte, 1867-1918*, ed.
 Gerhard Melinz and Susan Zimmermann (Vienna: Promedia, 1996), 174.
 ¹⁸⁰ Ibidem.

put the main emphasis on staging Prague as the "unofficial Czech capital." For example, as the urban historians Jiří Pešek and Václav Ledvinka showed that Karel Groš who served as the mayor of Prague between 1906 and 1918, attempted to use this role to promote Czech political goals abroad, positioning himself, as it were, as the "minister of foreign affairs of a stateless nation."¹⁸¹ Yet, the outbreak of the war brought a major transformation of the welfare policies pursued by the municipal authorities. By analyzing this development, this section strives to partially revisit, for the wartime period, the argument of Melinz and Zimmermann who claimed that "until the end of monarchy, little has changed concerning the … fact that the population of the industrial metropolis of Prague was much worse-off in terms of welfare."¹⁸² The main contention of this section is that this vast expansion of welfare policies in Prague during the war was propelled by knowledge produced by medical experts.

In pursuing their attempts to manage the production and distribution of food, the urban political elites embarked on a journey that was gradually leading them towards what their contemporaries called "municipal socialism." Early in 1915, Prague started selling in special stores the products that had been bought and stockpiled in the previous months. The municipal authorities thus started competing with the private businesses. In a similar vein, after long debates, the city of Prague opened its own bakery in March 1915, and so did many of Prague's suburbs.¹⁸³ Furthermore, at about the same time, the municipal authorities decided that the city should grow its own food to cover part of its needs, transforming Prague's various green spaces into fields. Even the yet unused 8000 square meters of one of the Prague's cemeteries started to serve this purpose.¹⁸⁴ The city also started breeding thousands of rabbits for the local

¹⁸¹ Václav Ledvinka and Jiří Pešek, Praha [Prague] (Prague: NLN, 2000), 544-545.

¹⁸² Melinz and Zimmermann, "Die aktive Stadt," 276.

¹⁸³ AHMP, "Prague's Magistrate I" Fund, Section XVI, files No. 29 and 30, Minutes of the Provisioning Commission, Minute dated September 29, 1914 and January 15, 1915; *Aprovisace obce pražské*, 21.

¹⁸⁴ AHMP, "Prague's Magistrate I" Fund, Section XVI, file No. 30, Minutes of the Provisioning Commission, Minute dated Fabruary 22, 1915; "Pěstování plodin k výživě obyvatelstva na obecních

consumers in one of the old military buildings at the Petřín/Laurenziberg Hill.¹⁸⁵ Thus, while producing and distributing food, the municipality started intervening in the city's economic life in order to ensure the smooth provisioning of Prague, and the scale of their interventions increased further as the shortage grew ubiquitous. One of the causes of this shift was that as the war continued, it was becoming increasingly clear that the municipal statute from 1850 which excluded the large majority of Prague's inhabitants from the right to vote would be revised or abolished after the end of the conflict. For instance, in 1916, the respected legal expert Václav Joachim specializing in self-administration, made the case for the introduction of the universal voting right to urban political bodies.¹⁸⁶ Consequently, it was becoming increasingly important for the urban political elites to cater for the interests of those groups of Prague's inhabitants, who did not yet enjoy the right to vote and whose lives were at the same time most affected by the shortage: the lower classes and women.

Above all, however, the steps taken by the municipal authorities were motivated by the expert advice they had received. Yet, nutritional experts did not directly provide this advice. There is nothing in the remaining records of the Prague Magistrate that would indicate a direct contact between any of the experts discussed above and the actors who made decisions about the city's politics of food. Nevertheless, the theories produced by the physiologists based at the Medical Faculty of the Prague University informed the expert advice formulated by the influential Office of the Municipal Physician [městský fysikát/Stadtphysikat]. The Office of the Municipal Physician was created in 1880, as a response to an epidemic that had affected Prague in the last years of the preceding decade. Together with the Municipal Health Commision that has been set up at about the same time, and drawing on a network of municipal health inspectors

pozemcích [Producing Food for Prague's Population on Municipal Premises]," Věstník obecní Královského hlavního města Prahy 22 (No. 9; May 13, 1915): 142-143.

¹⁸⁵ "Obecní chov králíků na Petříně, [Breeding Municipal Rabbits at the Laurenziberg]," Věstník obecní Královského hlavního města Prahy 22 (No. 17; September 2, 1915): 223.

¹⁸⁶ Václav Joachim, *Reforma správy veřejné a budoucnost samosprávy* [The Reform of Public Administration and the Future of Self-Government] (Prague: Řivnáč, 1916).

that had operated in Prague since the 1860s, these two institutions were the main expert bodies producing and mediating medical knowledge relevant to the policy of the municipal authorities.¹⁸⁷ They embodied what Dierig, Lachmund and Mendelsohn aptly called "managerial expertise," intimately linked to the regulation and shaping of the urban space.¹⁸⁸ Despite its traditionalist name, the office thus epitomized a modern public health institution.

The reports published by the office were framed by the work of those physiologists who stressed the systemic character of the human body. Consequently, the main accent was placed not on the caloric value of nutrition, but on its quality. In a report published in April 1915, which sparked a hysterical reaction in the press¹⁸⁹, the Municipal Physician [městský fysikus/Stadtphysikus] argued that the bread produced by the Prague bakers did not meet the standards and contained elements harmful for the organism. Only the "permanent strict control of the production of bread by the authorities" and "exceptional measures" could protect the health of consumers.¹⁹⁰ Thus, the report not only legitimized the steps so far taken by the urban political elites, but explicitly made the case for an increased intervention by the municipal authorities into the city's economy. Ladislav Procházka – a progressive who served as the Municipal Physician at the time of war - was consistent in promoting the view that central distribution of rationed foodstuffs could and should serve as a tool of welfare policy both during the war, and in the times of peace.¹⁹¹

Indeed, such intervention soon followed. From 1915 on, the municipal authorities used the powers at their discretion and took over some private bakeries, butcheries, and certain other

¹⁸⁷ Giustino, *Tearing down*, 81-84.

¹⁸⁸ Dierig, Lachmund and Mendelsohn, "Introduction," 6.

 ¹⁸⁹ See, e.g., "Nový nepřítel Prahy [Prague's New Enemy]," *Národní listy* 55 (No. 113; April 24, 1915): 1.
 ¹⁹⁰ "Zpráva městského fysikátu o zdravotních poměrech ve Velké Praze [The Report of the Office of the Municipal Physician concerning the Health Conditions in the Great Prague]," *Věstník obecní Královského hlavního města Prahy 22* (No. 8; April 1915): 123-124.

¹⁹¹ Ladislav Procházka, "Některé válečné zkušenosti hygienické a demografické [Some Wartime Hygienic and Demographic Experiences]," Časopis lékařů Českých 56 (No. 5; February 3, 1917): 179-183.
private businesses, forcing the others to close down.¹⁹² Furthermore, the urban authorities deliberately strove to provide the consumers with the most diversified, and not the most caloric, products. First, apart from the municipal shops distributing the ordinary foodstuffs, a special chain of shops was opened and run by the urban authorities that catered for the needs of middle class consumers. In order to provide quality products for this chain, the city of Prague even sent business agents to some neutral countries who then tried to procure products to be imported to Prague.¹⁹³ Secondly, during the war, the city took over and started to support massively a network of public kitchens which had been previously maintained by a private charity. In addition to these public kitchens which focused on lower class consumers, the municipal authorities opened in the summer of 1916 five public kitchens tailored for the middle-class consumers. The promotion materials stressed not only the hygienic standards maintained, but above all the diversity, quality and flavor of food that was served there, thus echoing the nutrition scientists based at the Prague University. When it was available, the canteens served meat.¹⁹⁴ Significantly, municipal health inspectors performed routine checks in the canteens. The task of these medical experts was to oversee not merely the hygiene, but also the quality of food and size of portions. The case of the public kitchens demonstrates, I argue, that expert knowledge of Prague physiologists promoting the systemic notion of the human body both entered the discourse and shaped the practices of local political elites.

The politics of food of municipal elites in Prague was thus informed by the theory that served as an alternative to, an often was directly opposed to the notion of the body as a human motor that stood behind the government's policies. By promoting a different definition of

¹⁹² For details, see Vojtěch Pojar, "*Nedostatek potravin za první světové války a legitimita komunálních elit v Praze* [Food Shortage and the Legitimacy of Urban Political Elites in Prague]," *Hospodářské dějiny/Economic history* 28 (No. 2; 2013): 177-225.

¹⁹³ Aprovisace obce pražské, 73-74.

¹⁹⁴ Vznik a činnost kuchyní komitétu pro stravování méně majetného obyvatelstva v létech 1916-1920 [The Emergence and Activity of Public Kitchens Run by the Committee for the Nutrition of Less Wealthy Population, 1916-1920] (Prague: Komitét pro stravování méně majetného obyvatelstva, 1920), 3.

starvation than the government, the municipal authorities created a specific horizon of expectations. Due to the active role of the city council in provisioning Prague, these expectations were met until the early 1917. Even though other major cities pursued similar policies, the press favorable to the governing parties repeatedly praised Prague for being the more successful in catering for the needs of its inhabitants.¹⁹⁵ The beginning of 1917, however, brought about a major change in this respect. The state-run central distribution increasingly often failed to provide Prague with foodstuffs necessary to distribute the rations, and the city's warehouses have been depleted as well.¹⁹⁶ Consequently, informed by the wider definition of starvation, both a significant part of the public and the municipal authorities perceived this general shortage as critical. It thus provoked increasingly harsh attacks on the government and on the centralized distribution of food both by the press, and by the municipal politicians.

The Office of the Municipal Physician again lent its authority, greatly increased during the war, to provide arguments for this criticism. Most importantly, in a report written in summer 1917 and sent directly to the Viennese Council of ministers, the state's food policy was made responsible for the increased incidence of illnesses and the rapidly growing death rate in the city. Municipal physician argued that even though they were legal or even required by law, the elements that were added as substitutes into the distributed food were useless as nutrients or even harmful to the organism and so was also the way how the food was produced. Both the quality and the quantity of rations were thus insufficient, the report concluded.¹⁹⁷ The criticism increased the conflict between the central imperial authorities and the Czech self-administration and fueled the discontent of the population with the Empire. In this sense, the municipal elites

¹⁹⁵ "Zásobovací poměry v Praze a ve Vídni [The Provisioning of Prague and Vienna]," *Aprovisační věstník král. hlav. města Prahy* 1 (No. 2; November 1, 1916): 6-7.

¹⁹⁶ For a description of the situation, see Lašťovková, "Zásobování Prahy," 111-117; Ledvinka and Pešek, Praha, 549-558; Scheufler, "Zásobování potravinami," 143-197.

¹⁹⁷ "Pamětné slovo obce Pražské o zásobovací bídě obyvatelstva v hlavním městě českého království [Memorandum submitted by the Commune of Prague on the Poverty Caused by Provisioning in the Capital of the Czech Kingdom]," *Věstník obecní Královského hlavního města Prahy* 24 (No. 18; September 27, 1917): 266.

achieved their aim. Yet they failed to transfer the blame on the Imperial authorities alone. For a threateningly large section of the public, they shared the blame with them for the failure to meet the expectation of the public concerning the sufficient supply of food. Consequently, food riots and strikes that spread like wildfire in the Bohemian Lands in the last two years of the war often targeted the urban political elites. In many cases, the boundaries between the symbolic and the physical violence were rather fluid.¹⁹⁸ In this context, the political elites in the different parts of the Prague industrial agglomeration even started seriously debating that they would collectively resign from their posts. They even went as far as to organize a confidential opinion poll asking the mayors in Central Bohemia whether they would support and join such a step.¹⁹⁹ As this action eventually did not materialize, it was only after the collapse of the Habsburg Empire when a major elite change in Prague took place. Almost all the pre-war urban political elite had been removed. Instead, many of those who now obtained a chair in the recently finished monumental art-nouveau building of Prague's New City Hall were actors who had previously provided the municipal authorities with expert advice.²⁰⁰

Apart from widening the gap between the central and local authorities, and between the urban political elites and the urban population, the debate of nutritional science also spilt over into other scientific fields, among which eugenics was certainly the most prominent. By offering a concept of starvation that implied that the bodies of the bulk of the Czech urban population were being impaired by starvation, the nutrition scientists prepared arguments the

¹⁹⁸ Jan Havránek, "Politische Repression und Versorgungsengpässe in den böhmischen Ländern 1914 bis 1918 [Political Repression and Food Shortage in Bohemian Lands, 1914-1918]," in *Der Erste Weltkrieg und die Beziehungen zwischen Tschechen, Slowaken und Deutschen* [The First World War and the Relations Between Czechs, Slovaks and Germans], ed. Hans Mommsen (Essen: Klartext, 2001), 47-67; Peter Heumos, "Kartoffeln her oder es gibt eine Revolution". Hungerkrawalle, Streiks und Massenproteste in den böhmischen Ländern 1914-1918 [Give us the Potatoes or there will be a Revolution! Food Riots, Strikes and Mass Protests in the Bohemian Lands, 1914-1918], *Slezský sborník = Acta Silesiaca: čtvrtletník pro vědy o společnosti Opava* 97 (No. 2; 1999), 81-104; Šedivý, "Češi, české země a velká válka."

 ¹⁹⁹ AHMP, Okresní zastupitelstvo Smíchov [Papers of the Self-Government of Smíchov Region], uncatalogued, Reports of the local authorities attached to the Minutes of the Regional self-government from 1918.
 ²⁰⁰ Láník et al., *Dějiny Prahy*, 263-277.

eugenicists could use in their controversies and in their calls for expert-led regeneration. To analyze the reconfiguration of Czech eugenics in response to the wartime challenges is the aim of the following chapter.

4. "Reforming the Starving Body of the Nation": Food Shortage, Private Initiatives, and the Redefinition of Czech Eugenics, 1916-1918.

"Even though the question of inheritance of acquired characteristics is in the last instance an exclusively biological issue, (...) it addresses the fundamental [political] question of humans and of their nature." (Jaroslav Kříženecký)²⁰¹

What is the role of the environment and of heredity in shaping a human being? Engaging with this question in the first decades of the 20th century, Czech scientists with different disciplinary backgrounds, including the young physiologist Jaroslav Kříženecký, negotiated the identity of the emerging discipline of eugenics. Debates about theories of inheritance in general, and about the impact of nature and nurture on organisms in particular were crucial in the Czech context in determining what the promoters of the new discipline identified as burning issues, the proper methods for their investigation and the adequate policies for solving them. As Kříženecký rightly recognized, these choices were ultimately linked to eugenicists' vision of human nature and thus to their underlying ideological assumptions. Even though the question of the "right" theory of inheritance – Mendelism or neo-Lamarckism – proved to be the most important, eugenicists tackled also other issues, such as the relationship of their movement toward the state or the importance of different disciplines for their science-in-the-making. In this chapter I demonstrate that in all these respects, war triggered a radical break in how most eugenicists perceived their discipline. Thus, I would like to provide an alternative to the interpretation of the history of Czech eugenics written by Michal Šimůnek who stresses the continuity of the development of the discipline in the first four decades of the 20th century.²⁰² Furthermore, in his account, Šimůnek underlines that Czech eugenics had a Mendelian

²⁰¹ Jaroslav Kříženecký, "Otázka dědičnosti získaných vlastností, její význam pro praxi eugenickou a úkoly politiky sociální [The Question of Inheritance of Acquired Characteristics, its Importance for Eugenic Practice and the Objectives of Social Policy]," *Česká revue* 1914-1915 (1915): 719.

²⁰² For a recent text, see Michal V. Šimůnek, "Czechoslovakia," in *East Central European Eugenics 1900-1945. Sources and Commentaries*, ed. Marius Turda (London: Bloomsbury, 2015), 128-145.

component and still, it distanced itself decisively from the German racial hygiene. Thus, he seems to suggest, Czech eugenicists had both the "right" theory and the right politics. I would like to demonstrate, on the other hand, that their position was much more ambiguous. I do not deny that some Czech eugenicists were indeed critical of German racial science from the outset. However, these authors were neo-Lamarckian and their criticism of racial science was part and parcel of their broader criticism of Mendelism and of its application not only in the German, but also in the British and American context. Czech Mendelians, on the other hand, were much less worried about the implications of the racial hygiene, at least well into the 1920s.

This purpose of this chapter is to understand this change of the identity of Czech eugenics by localizing it within the urban context in which it was created, and more specifically, by linking it with the effects of food politics at the local level. The main contention I make in this chapter is that all these debates were substantially stimulated and reconfigured, and the blueprint of a neo-Lamarckian "sociological eugenics" popularized by the attempts to counter the perceived impact of growing food shortage on the bodies of Czech urban population. In effect, this notion of eugenics not only gained ground in the public sphere, but also triggered the emergence of a Prague-based local charity based on eugenic principles. Frustrations generated by the unexpected results, closely linked with the success of this charity that used eugenics as a tool of anti-imperial contestation, however, provoked another revision of the Czech eugenics. This chapter thus reinforces the main argument of this thesis by pointing to another local group of actors who shaped the wartime food politics either actively, or by providing expert knowledge.

4.1 "Nature over Nurture": Popularizing Hard Inheritance before World War I

According to Marius Turda, the loose cluster of ideas which became known in diverse contexts as eugenics or racial hygiene epitomized a modernist project. Eugenics promised a remedy against the challenges of modernity. Countering what was increasingly perceived as degeneration, the interdisciplinary science of eugenics provided a powerful conceptual framework that allowed scientists to formulate credible claims about the ways how to achieve a collective improvement and regeneration. Consequently, eugenics as a discipline played a crucial role in defining the community in biological terms. Having appeared first in the British context in the 1880s, eugenics soon spread into other countries.²⁰³ Even though eugenic ideas were certainly a transnational phenomenon, as a scientific field eugenics assumed a wide variety of forms in diverse contexts. These diverse manifestations were explored by the research on national styles of science. Since, as I will argue, Czech eugenicists drew almost exclusively on German, French, British and American sources, I will limit myself here only to a brief and necessarily schematic discussion of the differences between these cases. In the British (and American) case, Francis Galton and his followers promoted eugenics that was based on the assumption that only inborn characteristics can further be inherited (hard inheritance) and called for selective breeding of the most fit (positive eugenics). In social terms, these eugenicists tended to exclude individuals based on class, rather than according to a national key. Conversely, French eugenicists advocated welfare reforms that aimed at improving human bodies, arguing that these acquired traits can be passed on the offspring. French eugenics with its theory of soft (neo-Lamarckian) heredity was thus very much in accord with the socially integrative French republicanism. Finally, in the German racial hygiene a current eventually started to hold sway that was based on a theory of hard inheritance (Weissmannian and/or Mendelian). It vocally promoted weeding out the unfit (negative eugenics).²⁰⁴ As the following two sections will demonstrate, Czech eugenicists debated and fused the elements of all these eugenic projects.

²⁰³ Marius Turda, *Modernism and Eugenics* (Basingstoke: Palgrave Macmillan, 2010), 1-12.

²⁰⁴ Mark B. Adams, ed., *The Wellborn Science: Eugenics in Germany, France, Brazil, and Russia* (New York: Oxford University Press, 1990); James Moore, "The Fortunes of Eugenics," in *Medicine Transformed: Health, Disease and Society in Europe 1800-1930*, ed. Deborah Brunton (Manchester: Manchester University Press, 2004), 239-265.

Scientists who hailed from the rapidly modernizing Bohemian Lands and published primarily in Czech, followed the transnational trend and started developing the discipline of eugenics at the end of the first decade of the 20th century.²⁰⁵ In order to appreciate how radically was the project of Czech eugenics contested by some actors during the First World War, it is worthwhile to analyze the prewar situation in some detail. To the analysis of blueprints of eugenics promoted before the war by various actors this section will be devoted. It argues that despite the marked differences between the individual projects, the early Czech eugenicists shared the preference of nature over nurture and advocated predominantly or even exclusively negative eugenic measures, restricting the reproduction of the "unfit." Furthermore, I will suggest here that even though many Czech intellectuals shared some concerns with the eugenicists at that time, most were, however, not willing to accept wholesale neither the claims of eugenics for the status of a scientific discipline, nor its palingenetic proposals for the improvement of the human stock.

The first Czech eugenicists lacked in most cases a prestigious position in the academia, and enjoyed neither the support of their scientific colleagues, nor of the authorities. Consequently, they addressed their calls for a collective regeneration to the broad public. Trying to promote their discipline among the lay audience, those who started to define themselves as eugenicists frequently used the vehicle of popular science to raise public awareness of what they identified as problems. More than the representatives of other life sciences in the Czech context, eugenicists thus had from the beginning a strong presence in the public sphere. In fact, popular science remained for a relatively long time the main medium of scientific communication of Czech eugenicists. The most important publications in eugenics published

²⁰⁵ For an overview of the history of Czech eugenics, see Michal V. Šimůnek, "Eugenics, Social Genetics and Racial Hygiene: Plans for the Scientific Regulation of Human Heredity in the Czech Lands, 1900-1925," in *Blood and homeland: eugenics and racial nationalism in Central and Southeast Europe, 1900-1940*, eds. Marius Turda and Paul J. Weindling (New York: Central European University Press, 2006), 145-166.

before World War I appeared in the editions targeted at the lay reader.²⁰⁶ Research centers, specialized journals and university chairs started appearing only after 1913, and especially after the war. Paradoxically, Czech scientists thus had been disseminating eugenic knowledge in popular publications even before they had other institutions of knowledge production at their disposal. Consequently, they produced eugenic knowledge *while* making popular science.

Three authors who published their works popularizing eugenics almost simultaneously at around 1910 were instrumental in promoting the notion. First and foremost, the experimental biologist Artur Brožek (1882-1934) embarked on a series of lectures on eugenics in Prague and in the countryside. Furthermore, from 1909 onwards, Brožek penned a number of articles that appeared in popular publications, such as the popular biology magazine *Živa* [Life] and in the *Pražská lidová revue* [Prague Popular Revue] which focused on popularizing the social sciences.²⁰⁷ Most importantly, his key pre-war work *Zušlechtění lidstva: Eugenika* [Improvement of Mankind: Eugenics], saw the light of day as a part of a popular science series issued by the respected publishing house *Topič*.²⁰⁸ Secondly, a physician František Lašek (1872-1947) contributed to the prewar debate about eugenics with a book *O dědičnosti a jejím významu pro úpadek a zachování lidstva* [On Heredity and Its Importance for the Decline and Preservation of Mankind].²⁰⁹ Even in this case, his book appeared as a part of a popular series, *Lidové rozpravy lékařské* [Popular Essays in Medicine]. The neuropathologist Ladislav

²⁰⁶ For a bibliography of the early Czech eugenics, see: Michal V. Šimůnek and Uwe Hossfeld, "Selected Bibliography on Heredity, Medicine, and Eugenics in Bohemia and Moravia, 1900-1950," *Folia Mendeliana* 49 (No. 2; 2013): 5-31.

²⁰⁷ Already in 1908, Brožek delivered a lecture on Mendelism at a meeting of the Czech Society of Entomology, consisting of 40, mostly amateur, entomologists: Artur Brožek, "O mendelismu [On Mendelism]," Časopis české společnosti entomologické 5 (No. 4; 1909): 118-148. Among his other popular publications, see Artur Brožek, "Eugenika. Nauka o zušlechtění a ozdravění lidu založená na pravidlech dědičnosti [Eugenics: The Science of Betterment and Sanitation of Population Based on the Rules of Heredity]," Pražská lidová revue 8 (No. 6; 1912): 173-179; Artur Brožek, "C. B. Davenport: Eugenika. Nauka o ušlechtění lidstva dokonalejším křížením [C. B. Davenport: Eugenics, A Science of Improvement of Mankind by Improved Crossbreeding]," Živa 22 (No. 1-3; 1912): 8-10 and 44-47 and 78-80.

 ²⁰⁸ Artur Brožek, *Zušlechtění lidstva: Eugenika* [Improvement of Mankind: Eugenics] (Prague: Topič, 1914).
 ²⁰⁹ František Lašek, *O dědičnosti a jejím významu pro úpadek a zachování lidstva* [On Heredity and Its Importance for the Decline and Preservation of Mankind] (Prague: J. Otto, 1910).

Haškovec (1866-1944) who served as the editor of this series promoting medical science often used it to publish his own works. His first essays, though, were targeted at other, yet not completely unconnected problems.²¹⁰ In a 1912 book published in the same series, however, Haškovec reframed his previous research as a part of eugenic agenda.²¹¹ In all cases, the popular articles predominated in the scholars' bibliography over scientific studies.

By the time the first Czech scientists published their works promoting eugenics, many problems they emphasized and fears they articulated had already made themselves felt in the public debates about evolutionism, population decline and degeneration. Among the scientists in Bohemia, Darwinian evolutionism had been already strongly present in the discussions of the 1870s. Soon, due to a massive popularizing drive and ensuing controversies, it spilt over into public debates, as well. By the turn of the century, Darwinian evolutionism was a common currency among the Czech educated public and was no longer considered controversial in this milieu. Already in the last quarter of the 19th century, Czech Darwinists started to promote the application of the evolutionist theory on human society. Endorsed by the leading figures of the Young Czech and Agrarian Parties, Eduard Grégr and Alfons Šťastný, Social Darwinism in general, and the notion of the struggle for survival in particular, soon became a constitutive part of political languages of national liberalism and agrarianism.²¹² Hence, already at the end of the 19th century, many were inclined to think through the challenges of modernity using biological terms. Secondly, an expert debate about population decline unfolded at the turn-of-the-century

²¹⁰ Ladislav Haškovec, O příčinách chorob nervových a duševních a kterak jim předcházet [On the Causes of Nervous and Mental disorders And how to Prevent them] (Prague: Otto, 1900); Ladislav Haškovec, Snahy veřejně zdravotnické v otázce smlouvy manželské [Efforts of Public Healthcare Concerning the Issue of Marital Contract] (Prague: Otto 1902); Ladislav Haškovec, Ochrana mládeže [Protecting the Youth] (Prague: Otto 1909).
²¹¹ Ladislav Haškovec, Snahy eugenické [Eugenic Efforts] (Prague: Otto 1912).

²¹² Janko, Vědy o životě, 317. To my knowledge, there are few scholars who have analyzed the role social Darwinism in the Czech political thought and in the Czech culture in general. For a groundbreaking recent study, see Vít Strobach, "Třída, národ a degenerovaná rasa podle českých socialistů (1890-1914) [Class, Nation and Degenerate Race According to Czech Socialists, 1890-1914]," Politologická revue 18 (No. 2; 2012): 99-119; Vít Strobach, Židé: národ, rasa, třída. Sociální hnutí a "židovská otázka" v českých zemích 1861-1921 [Jews: Nation, Race, Class. Social Movements and the "Jewish Question" in the Bohemian Lands, 1861-1921] (Prague: NLN, 2015).

and quickly spilt over to the public sphere. In statistical terms, the birth rate in the Czech lands started decreasing in the 1870s, and dropped significantly after 1900. However, demography did not exist as an independent discipline in the Czech context. Thus, the research on the population issues was interdisciplinary, involving both social (economists, sociologists, lawyers) and life sciences (medical professionals and biologists).²¹³ Concerned about decreasing number of births, these experts sought to discover the causes of and potential remedies for what they often regarded as a threat weakening the "national organism" in the struggle with other nations.

The third crucial debate revolved around the notion of degeneration. In his major book *Slabí v lidské společnosti: ideály humanitní a degenerace národů* [The Weak in the Human Society: The Ideals of Humanität and Degeneration of Nations], the sociologist Břetislav Foustka summarized the contemporary debates about degeneration, engaging with the questions of its causes, symptoms, and projects of regeneration. Even though he preferred social reforms reshaping the environment as the most realistic and humane solution to the challenge posed by the alleged degeneration, Foustka nevertheless accepted (admittedly, not without qualifications) the biological notion of the community, the concept of degeneration and a social Darwinist vision of the world governed by a struggle for survival between diverse individuals and groups. In this manner, by using them as a justification of social reforms, the student of Masaryk wanted to reconcile these concepts with the ideals of Humanität promoted by his teacher and thus to introduce them into the political language of Czech civic radicalism.²¹⁴ At the same time, the psychiatrists had a somewhat different take at the same issue. Drawing predominantly on Morel and the ensuing discussions about "pathological heredity" in French psychiatry, the

²¹³ Šubrtová, Dějiny populačního myšlení, 135 and 153-154.

²¹⁴ Břetislav Foustka, *Slabí v lidské společnosti: ideály humanitní a degenerace národů* [The Weak in the Human Society: The Ideals of Humanität and Degeneration of Nations] (Prague: Laichter 1904).

certificates which would exclude the unfit, such as the "feeble minded," alcoholics or ill from engendering further offspring.²¹⁵ Consequently, even though Haškovec admitted that a reform of the environment was important to the cause of resistance to degeneration, he ultimately went beyond the sociologist Foustka by seeking a solution in a more direct state intervention restricting the reproduction of the "degenerate."²¹⁶ The crucial importance of these debates was thus in that they were paramount in inaugurating the biological definition of the national community and contributed to a "domestication" in the broader Czech public of the social Darwinist notion of the struggle for survival. Significantly, given the many shared concerns, some of those who were involved in these debates, including Haškovec and Foustka, started to define themselves as eugenicists at some point.

While some of the actors of the debates joined the eugenicists' ranks, however, most members of the relevant scientific fields were less enthusiastic. Whatever the eugenicists' disciplinary background and the differences between their projects, these authors faced mistrust, and most often, indifference of their colleagues. Suggestively, a 1914 text deplored that most medical practitioners had remained skeptical toward eugenics.²¹⁷ The main reason of this skepticism was the awareness of the limits of eugenic knowledge. One of the most common critical remarks raised by medical doctors on the account of eugenics that frequently voiced well into the 1920s, underlined the yet imprecise nature of the laws of heredity and suggested that these can hardly provide basis for any responsible policies.²¹⁸ This attitude to the emerging discipline was further strengthened by the fact that the early eugenicists, with the sole exception of the professor of neuropathology at the Prague (Czech) University L. Haškovec, were hardly

²¹⁵ On Morel and the French debate, see Daniel Pick, "Introduction," in *Faces of Degeneration: A European Disorder, c.1848-c.1918* (Cambridge: Cambridge University Press, 1993), 1-33.

²¹⁶ Haškovec, *Snahy veřejně zdravotnické*, passim.

²¹⁷ Ladislav Haškovec and Vladislav Růžička, "Úvodem [Introduction]," *Revue v neuropsychopathologii, therapii, veřejné hygieně a lékařství sociálním* 11 (1914): 147.

²¹⁸ See e.g. Josef Pelnář, "Omezování a zakazování sňatků z důvodů eugenických [Restricting and Prohibiting Marriages for Eugenic Reasons]," Časopis lékařův českých 58 (Nov., 1919), 925-927.

part of the intellectual establishment. While Brožek eventually found a job as a high school teacher in Prague, and Herfort served as a director of one of Prague's smaller, private mental asylums, Lašek did not even have a residence in the capital: he ran a private clinic in the provincial town of Litomyšl.²¹⁹ The fact that they were not linked to research at universities not only decreased the authority of claims that had been making, but crucially, also meant that they were deprived of the most important source of funding for their research. The financial means other institutions had in their disposal were negligible in comparison with university budgets for research.²²⁰ Public lectures and popular publications were a usual source of additional income for those scholars who had not yet obtained a secure job. Furthermore, eugenic projects stressed the importance of education of the public as a means of promoting the biopolitical measures proposed by the eugenicists. In this case, however, popularization served above all as a tool of searching alternative support for a discipline whose claims have often struggled to gain credibility in the eyes of many fellow scientists.

From the outset, the emerging field of eugenics was interdisciplinary in the Czech context. The key authors who promoted eugenics before 1914 came from various disciplines. As already mentioned, Brožek was an emerging experimental biologist focused mainly on botany, Lašek worked as a medical practitioner, while Haškovec was one of the leading figures of Czech neuropsychiatry. Also, Karel Herfort (1871-1940), who later closely cooperated with Brožek in putting his research ideas into practice worked as a psychiatrist.²²¹ Initially, therefore,

²¹⁹ Ctibor Blattný, "Artur Brožek jako středoškolský profesor [Artur Brožek in the Role of High School Teacher]," Vesmír 55 (April, 1976): 122.

²²⁰ Janko, Vznik experimentální biologie, 92-93.

²²¹ For biographies of the main actors, see Bohumil Němec, Artur Brožek (Prague: Česká akademie věd a umění, 1935); Josef Kettner, ed., Prof. MUDr. Karel Herfort in memoriam: soubor článků a vzpomínek [The Late Professor Karel Herfort: A Collection of Essays and Memoirs] (Prague: Spolek pro péči o slabomyslné, 1940); Stanislav Vosyka, K životu a dílu litomyšlského purkmistra MUDr. Františka Laška (1872-1947) [Life and Works of František Lašek, M.D., Mayor of Litomyšl. (1872-1947)], in Pomezí Čech a Moravy : sborník prací ze společenských a přírodních věd pro okres Svitavy, ed. Milan Skřivánek (Litomyšl: Státní okresní archiv Svitavy se sídlem v Litomyšli: 1997), 69-98; Martin Brüne, "Ladislav Haskovec and 100 Years of Akathisia," The American Journal of Psychiatry 159 (May, 2002), 727.

there was little contact between these authors and I suggest we can hardly speak about a eugenic community, not even in the making. Due to the diverse disciplinary backgrounds and a lack of communication, the efforts of individual eugenicists and the resulting projects were highly individual. In the paragraphs that follow I argue that while Artur Brožek's main inspiration can be found in the American eugenics, František Lašek drew predominantly on German sources and Ladislav Haškovec followed French debates. Yet, in spite of their differences all these prewar projects tended to stress hard heredity and negative eugenics.

Artur Brožek's work stands out among early Czech eugenicists. Not only was he among the first who introduced the term in the Czech scientific debate, connected it with a modern theory of inheritance and attempted to popularize it. Moreover, Brožek also wrote the *The Improvement of Mankind*, the most extensive and abstract treatise on eugenics published in Czech before World War I. Finally, Brožek was also the first one who in the Czech context carried out research directly related to eugenic problems. In the *Improvement of Mankind* published in 1914, Brožek ambitiously attempted to outline a comprehensive blueprint of Czech eugenics, dealing extensively with theoretical underpinnings on which he believed it should be based, and with the measures which eugenics such conceived should promote. Brožek, who was aware of not only the German but also the English-language debates on inheritance and eugenics,²²² embraced and promoted Mendelism as a theory of inheritance and attempted to link it with biometry as a research method. Given the fact that these two approaches were considered contradictory by the leading British eugenicists, this choice might seem astonishing.²²³ More that the British context, however, Brožek followed and valued the American research. American eugenics was the main resource for Brožek's project. He was

²²² Apparently, Brožek corresponded with the leading figures of the British and American Eugenics. In his acknowledgements, written in English (!), Brožek expresses his gratefulness to Davenport, Mott, and Pearson. Furthermore, Brožek studied Géza von Hoffmann's report on American eugenics.

²²³ Daniel J. Kevles, "Genetics in the United States and Great Britain, 1890-1930: A Review with Speculations," *Isis* 71 (Sep., 1980): 442.

particularly interested in the work of the eugenicist and (in early stages of his career) biometrician Charles B. Davenport, who in his research station fostered cooperation between Mendelians and biometricians.²²⁴ Brožek had even authored a lengthy overview of Davenport's views on eugenics in an article written for the popular biology journal.²²⁵ It thus posed few problems for Brožek to connect the two approaches and the attempt was acclaimed by the reviewers as well, one of whom hailed Brožek as "a hard-working scholar on the fields of biometry and Mendelism."²²⁶

Taking Mendelian theory of inheritance as a starting point, Brožek stressed the crucial importance of inborn characteristics in shaping of human beings, and eschewed the inheritance of acquired traits. Hence, since the influences of the environment could not modify the genes, their role remained confined only to the development of inborn, unequally distributed potentials. Furthermore, Brožek connected this concept with the social Darwinist vision of the struggle for survival. Traditionally, he argued, the struggle for survival revealed the hidden inborn weakness and deficiencies in some individuals who then perished in this struggle. In modern societies, however, the principle of natural selection had been greatly attenuated by the cultural development, allowing the unfit to survive and to reproduce. Brožek asserted that the growth of culture as expressed in the diminished power of natural selection had been the main source of degeneration.

In order to regenerate the society, Brožek advocated eugenic measures and, following Schallmayer, distinguished between positive and negative eugenics. As his theory of inheritance did not yet provide the knowledge necessary for a planned breeding of "worthy" individuals (that is, positive eugenics), Brožek suggested that eugenic measures had to be

²²⁴ Kevles, "Genetics in the United States," 446-447.

²²⁵ Brožek, "C. B. Davenport: Eugenika," passim.

²²⁶ Vladislav Růžička, "Review of "Artur Brožek: Zušlechtění lidstva," *Revue v neuropsychopathologii, therapii, veřejné hygieně a lékařství sociálním* 11 (1914): 152.

negative, eliminating the unfit. The main task of eugenics, according to Brožek, consisted of preventing the ill and the "degenerate" from reproducing. To achieve this aim, Brožek advocated above all a eugenic regulation of marriages, including it even into his definition of eugenics: "The eugenic efforts are concerned with recognizing the factors, in the broadest sense of the word, that exercise positive or negative influence on the physical or spiritual quality of future generations. These efforts, however, include also the practical activities that – in the positive or negative way – aim at improving the hereditary value of the people, especially by an appropriate regulation of marriage."²²⁷ (In this point, his proposal resonated with the suggestions that had been repeatedly made in the Czech context by L. Haškovec which will be discussed below in more detail.) Apart of the introduction of marriage certificates, Brožek advocated other measures as well, clearly following the American model. He advised the authorities to introduce an evidence of hereditary qualities of individuals, to isolate the unfit and to deprive them of the right to enter marriage, and finally, to sterilize the individuals, if need be.²²⁸ Brožek's blend between Mendelism and social Darwinism thus translated into a set of negative eugenic measures which aimed at weeding out those who were stigmatized as unfit.

By stressing the importance of nature over nurture and of negative eugenic measures, Brožek challenged the way how social problems were treated by civic radicals. It is thus possible to read *The Improvement of Mankind* as an aggressive refutation of the main arguments made by Foustka in his attempt to link social Darwinism with humanitarian principles. There was little space for *Humanität* in Brožek's book. The same, interestingly, was true for nationalism. Echoing Galton, Brožek repeatedly alluded that the middle classes owed their success to their inherited qualities, implicitly assuming that the plight of the lower classes was due to their biological deficiencies.²²⁹ Significantly in this regard, unlike most early Czech

²²⁷ Brožek, Zušlechtění lidstva, 98.

²²⁸ Brožek, Zušlechtění lidstva, 106-9.

²²⁹ Brožek, Zušlechtění lidstva, 95-97.

eugenicists, Brožek was not concerned with the declining birth rate of the lower classes. As the nation played a negligible role in his outline of eugenics, it might be concluded that his eugenics was rather class based, than nation based. Apart from dwelling on the theory of inheritance and on the practical eugenic measures, Brožek devoted his attention to the institutionalization of the discipline, describing the recently established Czech eugenic record office [eugenická centrála] and outlining its research program.²³⁰ The institution opened in 1913 and was attached to Ernestinum, a private mental asylum located in Prague. It was the only institution eugenicists created before the outbreak of the World War I. Apart from Brožek, the eugenic record office was run by Karel Herfort, the director of the mental asylum. Herfort originally explained the occurrence of feeblemindedness as a question of developmental mechanics or embryology, suggesting that their chief cause lays in the influence of the environment.²³¹ After he had started cooperating with Brožek, however, Herfort embraced Mendelism. Inspired by the the Committee of Eugenics of the American Breeders' Association, the eugenic record office gathered information on the asylum's inmates, and used it to construct their pedigrees The evocative pedigrees, resulting from an assessment of 56 questionnaires Brožek and Herfort had received, were used to back the claim that mental illnesses were inherited according to Mendelian principles as a recessive trait.²³² The anniversary publication of the mental asylum underlines that the institution had both Czech and German speaking inmates. Yet, nothing

²³⁰ Before he set up the eugenic record office, Brožek had already carried out research on the distribution od talent in the population and in plant breeding. Artur Brožek, "Ukázky z experimentální biologie: mendelism, dědičnost a variabilita [Essays in Experimental Biology: Mendelism, Heredity and Variability]," *Beseda Učitelská* 42 (1910): 1-60; Artur Brožek, "O variabilitě výkonnosti a cviku [On Variability of Efficiency and Training]," *Biologické listy* 1 (1912): 1-8.

²³¹ Karel Herfort, "Jak pohlížeti na dítě slabomyslné se stanoviska biologického [Interpreting Feebleminded Children from a Biological Perspective]," *Revue v neurologii, psychiatrii, fysické a dietetické therapii* 4 (Aug.-Sept., 1909): 380-383.

²³² Karel Herfort, "Eugenický význam vrozené slabomyslnosti a prvé výsledky prací v tom směru vykonaných eugenickou stanicí při Ernestinu [Eugenic Importance of Innate Feeblemindedness and First Results of Works Undertaken by the Eugenic Record Office at Ernestinum]," *Revue neuropsychopatologie, therapie, fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 12 (1915): 447-463.

indicates that the eugenic research focused only on Czech subjects. Thus, it is worthwhile to note that even in this case, the main focus was more on class than on the nation.

František Lašek, a provincial medical doctor, was less active in promoting eugenics than Brožek. While Brožek toured Bohemia with his lectures, Lašek lectured only in his home town. He made his only prewar contribution to the debate which addressed the public outside the place of his residence in a short pamphlet, On Heredity (1910).²³³ Lašek was well read in the debates between German eugenicists and shared their approach to the theory of inheritance. As his detailed introduction into the theory of inheritance testifies, his approach to heredity was informed crucially by cytological research, above all by Boveri's examination of chromozomes' role in heredity and Weissmann's theory about the continuity and immortality of germ-plasm. Following these authors, he claimed that the chief sources of variation are internal and that the nature thus played the decisive role in determining the traits of the individual. Yet, he did not accept wholesale the argument that somatic and germinal cells were separate and that the changes inflicted on the body by the environment could not and did not affect the germ plasm, which was the central argument of Weissmann's criticism of the inheritance of acquired characteristics. Engaging with this argument, Lašek suggested that the claim was exaggerated and in that order to explain the breeding of animals, some notion of inheritance of acquired characteristics was necessary.²³⁴ However, even though Lašek was not prepared to exclude any role of the environment whatsoever, he was still placing the main emphasis on the role of nature.

Taking nation as his main frame of reference, Lašek identified two major threats to its biological value. Drawing on Morel, he warned against a progressing degeneration triggered by the advancement of civilization. Apart from degeneration, Lašek also emphasized the impact

²³³ Lašek, O dědičnosti, passim.

²³⁴ Lašek, *O dědičnosti*, 16-17. He argued that this tension between the neo-Darwinian theory and the empirical practice could be actually resolved by a return to Darwin's speculative notion of gemmules, which circulated in the body and could thus transmit environmental influences to the germ cells, when they eventually entered them.

on the national strength of a declining birth rate triggered by growing individualism and by the birth control. However, being physician himself, Lašek eschewed the argument that medicine was to blame for these developments and that it thus with its efforts ran counter to what eugenicists were trying to achieve.²³⁵ The chief objective of Lašek's book was to prove exactly the opposite: that eugenics, as a strategy to counter the degeneration, was not only compatible with medicine in general and public health in particular, but actually reinforced its agenda. Concerning the practical angle of eugenics, it was clearly not Lašek's intention to sketch a wellrounded program of a new science. His aim was much more modest, to mention some possible applications of eugenics. Among these general recommendations, Lašek included both negative and positive eugenic measures. He advocated the control of reproduction of those deemed degenerate, and selection of the fit to enter marriages. However, Lašek stressed that these measures were to be carried out merely on a voluntary basis. Furthermore, social reform measures had to be taken by the authorities and Lašek argued that a country-wide institution coordinating these measures needed to be set up either by the local authorities or the state.²³⁶ Writing in Litomyšl, an epitome of a traditionalist town in the countryside, Lašek thus attempted to promote eugenics in a way that would avoid fueling conflict and even find some overlaps (e.g. pronatalism) with conservative ideology.

By the time when eugenics entered Czech public debate, Ladislav Haškovec had since 1900 already published a series of pamphlets and articles advocating the introduction of marriage certificates as a public health measure.²³⁷ In his book from 1912, *The Eugenic Efforts*, he reframed his previous calls as part and parcel of a eugenic agenda. Pointing to eugenics and particularly to Davenport's research, Haškovec claimed: "It is necessary to remind the reader

²³⁵ Lašek, *O dědičnosti*, 22, 26, 28.

²³⁶ Lašek, O dědičnosti, 26-27.

²³⁷ Haškovec, O příčinách; Haškovec, Snahy veřejně zdravotnické; Ladislav Haškovec, "Zdravotnictví veřejné a smlouva manželská – referát z mezinárodního sjezdu v Lisaboně [Public Healthcare and Marital Contract – Report from an International Congress in Lisbon]," Časopis lékařů českých 65 (1906): 798-801.

that the ideas contained in his text had been in principle and in many a detail already mentioned in my treatise 'Aims of Public Healthcare in the Issue of Marital Contract' which saw the light of day in 1902."²³⁸ Unlike Foustka and Lašek who did not suggest the state should override individual choice, Haškovec was adamant that the interest of the community was greater than the individual good. Only by introducing the marriage certificates, the authorities could face the specter of degeneration and "return us from the untenable and perverse modern life into the womb of nature."²³⁹ Following Morel and the ensuing debates in the French psychiatry, Haškovec identified the pathological heredity as the main cause of mounting degeneration. Furthermore, in briefly describing the principles of inheritance, Haškovec alluded to Mendelian laws.²⁴⁰ Thus, Haškovec also stressed the primacy of nature over nurture.

To sum up, the texts analyzed above had were to a large extent individual projects, written without much mutual contact. Nevertheless, I suggest it is possible to identify three shared features. First, all of these authors claimed that the humans are formed predominantly by their genetic baggage, and less, if at all, by the surrounding environment. Second, the eugenic or racial hygienic (the authors used these terms as synonyms) measures were mostly negative, aiming at a reduction of the "unfit," either by voluntary abstinence or by force of the law. Third, by promoting this package, all of these authors more or less explicitly addressed the local authorities. The local self-administrations were, before 1914, one of the main pillars of the political life in Bohemia and in many areas, they were run mostly by Czech politicians. However, these political bodies have become seriously indebted in the course of the 19th century. By the time eugenicists started writing their popular books, the Bohemian provincial administrative body [zemský výbor/Landesausschuss] was on the verge of bankruptcy. At the same time, more or less reluctantly, the local authorities ran and supported financially a

²³⁸ Haškovec, Snahy eugenické, 2.

²³⁹ Haškovec, *Snahy eugenické*, 10.

²⁴⁰ Haškovec, Snahy eugenické, 6-7.

relatively large network of charitable and public health institutions.²⁴¹ The offer of the eugenicists, who were all linked to the local authorities in one way or another,²⁴² was to limit the expenses for the poor and the ill in the context of a shrinking budget. Out of all early eugenicists, Haškovec was most explicit: "thousands give birth to the ill individuals who poorly loaf their lives away, are a burden for the others or the join the ranks of lunatics and criminals, putting the provincial and state budget under heavy financial strain."²⁴³ Nevertheless, apart from some support the eugenicists received from the Provincial Commission for the protection of children, the local authorities did not accept the offer. While the attempt to forge links with the local administrative bodies in Bohemia ended in a semifailure, the attempt to disseminate eugenic knowledge brought even more limited results. The eugenicists have not generated a following neither in Prague, nor in the province and there were few reactions to their proposals. Even the flagship journal of the national liberal party - to which all the eugenicists discussed above were linked and whose ideology had arguably the greatest overlap with their teachings – had very little to say about eugenics before 1914. In the next section, I will argue that just a few years later, their neo-Lamarckian competitors were much more successful.

4.2 Wartime Challenges and the Shift from "Biological" to "Sociological" Eugenics

Shortly before the outbreak of the First World War, a new group of scientists joined the emerging field of eugenics. Coming from a different background than the earlier eugenicists - experimental biology and medicine - these scholars radically contested the existing concept of eugenics. Eschewing Mendelism and in some cases, also Darwinian evolutionism, they made the case for eugenics based on the theory of inheritance of acquired characteristics, encouraging

²⁴¹ Milan Hlavačka, *Zlatý věk české samosprávy*, 107-115 and 172-179.

²⁴² Lašek was a member of the local and regional administration in Litomyšl. Significantly, he was in charge of the budget there. Haškovec was actively involved in the projects orchestrated by the Bohemian Commission for the Protection of Children. Brožek and Herfort were linked to the provincial authorities by virtue of their involvement in the same organization.

²⁴³ Haškovec, Snahy eugenické, 4.

social reforms, and overlapping in many cases with feminism and neo-Malthusianism. As was the case with their predecessors, however, these scholars also promoted eugenic knowledge through popular science. Yet, in this case, their popularization widely resonated among Czech public and eventually sparked a social movement embracing, in its outlines, a eugenic program. The causes were varied, but it will be demonstrated here that the crucial difference lay in the wide space for active popular participation in carrying out the eugenic measures which neo-Lamarckism carved out, and which the biological determinists ultimately failed to provide. Consequently, I argue here that the style of early Czech eugenics was to a substantial extent shaped by the interaction of scientists with different audiences and their values and expectations. Since the emerging scientific field of eugenics was an interdisciplinary enterprise, the paradigms promoted by different groups of scholars varied substantially, reflecting often their original disciplinary background, such as psychiatry, physiology, and plant breeding. The favor of the public provided symbolic capital and thus substantially influenced the outcome of the conflicts between competing claims of scientists who formed the such a differentiated scientific field.²⁴⁴ I will argue in this section that the First World War further reinforced this trend and propelled eugenicists to seek support of large sections of the progressive public, including the newly empowered women. This development, therefore, had also an important gender aspect and it thus makes it possible to include the active part of women into a rather male-centered story of the 19th and early 20th century science.

The group formed around Vladislav Růžička (1870-1934) and his students whom he gathered as a professor of general biology and experimental morphology at the Faculty of Medicine of the Prague (Czech) University. Růžička's interest in eugenics was sparked by his research in physiology. I discussed his theory of "morphological metabolism of protoplasm" in

²⁴⁴ For an example taken from history of anthropology, see "History without Humanism: Culture-Historical Anthropology and the Triumph of the Museum," in Andrew Zimmermann, *Anthropology and Antihumanism in Imperial Germany* (Chicago, London: The University of Chicago Press: 2001), 201-216.

detail in the previous chapter. The theory which suggested that incessant changes were taking place in the living matter and were triggered chemically, had important implications for the research on heredity. Růžička, innovatively suggesting microorganisms as research objects, went into this direction in the following years. Taking his notion of "morphological metabolism" as a starting point Růžička raised three main objections against Mendelism. Firstly, Růžička claimed contra Mendelians that chromatin (and thus, chromosomes) cannot serve as a vehicle of transmission of hereditary information. He argued that chromatin is just a site of storage, and even went as far as to say that they were no more than mere dead matter. Thus, Růžička departed from the chromosome theory, which formed one of the bases of the newly emerging Mendelism. Instead, he proposed that hereditary information is transmitted by the living matter in general, on which the outer environment can easily leave an imprint through the functioning of metabolism.²⁴⁵

Secondly, Růžička challenged Mendelism by refuting the theory of continuity and immortality of germ-plasm, formulated by the biologist August Weissmann. In a nutshell, Weissmann argued that the germ cells, functioning as agents of heredity, and the somatic cells were separate. The hereditary information could be passed only from the germ plasm to the somatic cells, not the other way round. Thus, the environment which influenced the body could not have any impact on the hereditary information. Růžička, on the other hand stressed that organism is a single unit, unified by the flows of the same living matter (protoplasm), ultimately steered by chemical processes.²⁴⁶ "Heredity," Růžička argued, "is not a question of continuity of some particular 'hereditary' matter, but an issue of continuity of an 'ability to inherit,' based on a specific chemical make-up, and on metabolism, to which this composition gives rise, under

²⁴⁵ Janko, Vědy o životě, 284.

²⁴⁶ Janko, Vědy o životě, 285.

certain external conditions."²⁴⁷ Significantly, in denying the validity of Weissmann's theory, Růžička was not alone. Instead, he offered a theoretical explanation for a view often voiced by influential Czech biologists, such as Karel Domin, Eduard Babák and Alois Mrázek, who all believed that the inheritance of acquired traits was a basic precondition that made evolution thinkable.²⁴⁸

Thirdly, with respect to its application in eugenics, Růžička claimed that Mendelism had a low explanatory and predictive power. It could not provide a causal explanation of inheritance, Růžička argued, but only a set of statistical probabilities regarding the distribution of traits. The genetic make-up of a particular individual could thus not be predicted using the Mendelian principles.²⁴⁹ Furthermore, drawing on the distinction between phenotype and genotype and the notion of pure lines, both recently introduced by the geneticist Wilhelm Johannsen, Růžička attempted to show that Mendelism could not yet yield knowledge that could be applied in eugenic practice. Since human hereditary information (genotype) was yet unknown, scholars could observe only its effects (human properties, i.e. the phenotype). Růžička argued that an analysis of human hereditary information was prevented by the fact that in humans there were no uniform groups of individuals who were pure genetically, that is, pure lines in Johannsen's sense. Furthermore, it was impossible to carry out breeding experiments anyway, for ethical reasons. Consequently, there was no way how to find out which traits were dominant or recessive and, more generally, to prove the validity of Mendelian principles for human beings: "To make a long story short, it is not possible to determine scientifically whether Mendelian principles hold true for humans. If some claim and write that those principles have been proven in humans, and if they resort to Mendelian principles to frame their eugenic

 ²⁴⁷ Vladislav Růžička, Nárys učení o dědičnosti. Pro studující, lékaře, učitelstvo a profesory škol středních a hospodářských [Theory of Inheritance in Outline. For Students, Physicians, Teachers and Professors], (Prague: Hynek, 1914), 221.

²⁴⁸ Janko, *Vědy o životě*, 310.

²⁴⁹ Růžička, Nárys učení o dědičnosti, 8.

projects, these attempts cannot be considered scientific, especially as long as the inheritance of illnesses is concerned."²⁵⁰

Clearly, Růžička's aim was to discredit the negative eugenic proposals formulated by Brožek and the theory behind them. As an alternative, Růžička claimed that the hereditary information was not transmitted by any morphological feature, but by the living matter, the plasma.²⁵¹ Plasma, however, was shaped by the chemical processes of metabolism. Given that metabolism, in turn, was molded by the surrounded environment, it was ultimately the nurture which formed human beings. Since there were causal relations between the environment, the body and the hereditary information, human biological development could be predicted by science and directed through deliberate social reforms. Růžička, drawing on his own theory of "morphological metabolism," thus advocated a theory of inheritance of acquired characteristics that was, in its effects, close to the neo-Lamarckism of Paul Kammerer. Růžička was well aware of the research in developmental mechanics carried out by this Viennese scholar and found Kammerer's results convincing.²⁵² If Foustka's project offered a biological justification of social reformism promoted by civic radicals and social democrats, Růžička provided this biological justification with a modern (and firm, as many believed) genetical grounding.

As far as promoting their views was concerned, the group led by Růžička had a much more favorable starting point that their predecessors. Quite unlike one of his influences, Kammerer, who was to a large extent an outsider in the Viennese academic world, Růžička was a part of the Prague scientific establishment. Actually, he counted among the best known Czech biologists, and was recognized even internationally. Moreover, Růžička, a talented scientific organizer, managed to set up in 1911 an institute of general biology at the Faculty of Medicine,

²⁵⁰ Vladislav Růžička, *Dědičnost u člověka ve zdraví a nemoci* [Heredity in Healthy and III Humans], (Prague: Otto 1917), 49-50.

²⁵¹ Růžička, *Nárys učení*, 10.

²⁵² Růžička, Nárys učení, 8.

and had thus the means to develop his research further.²⁵³ Furthermore, as the other eugenicists who worked in the neo-Lamarckian vein were mostly his students and assistants at the institute, their research projects were complementary. Thus, in sociological terms, apart from enjoying higher prestige due to their position in the academia, the group Růžička headed was also more tight-knit than the promoters of Mendelism.

Importantly, apart from having been embraced by his students, neo-Lamarckian eugenics promoted by Růžička also appealed to many Czech experts, coming from the social sciences, whose horizons of expectation changed with the outbreak of the First World War. Early on, they started voicing their concerns about the wartime human losses and their ramifications for the "strength" of the nation conceived of as a biological entity. The experts began to discuss the need for more comprehensive biopolitical measures. Particularly, they placed emphasis on the allegedly disastrous population decline and the challenges of child welfare. The promise of eugenics to regenerate and reinvigorate the nation, both in qualitative and numerical terms, by means of environmental reform, proved attractive for these scholars. Consequently, no later than in 1915, the experts began to link these debates with eugenics.

For instance, a young sociologist Edvard Beneš made a case for a stronger connection between child welfare and population policies. In his article, published in the revue *Ochrana mládeže* [Protecting the Youth], he pointed to the decreasing birth rate in Bohemia and identified the increasing individualism as its main cause. Interpreting the growing individualism as a herald of progress, he did not, therefore, advocate any measure for increasing the number of births. Instead, he argued that in order to offset the population decline, it was imperative to reduce the infant mortality and to support the children, so as to raise "as strong individuals as possible." Beneš thus used eugenics to link the issues of child welfare and population decline,

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²⁵³ Janko, Vznik experimentální biologie, 74.

making the case for a change in the environment, thus promoting the "quality," rather than the "quantity" of the population.²⁵⁴ Another sociologist with civic radical background, Břetislav Foustka, contributed to the debate on population decline as well, with the pamphlet *Péče o dítě* (Caring for Children). Engaging with child welfare, he maintained that "the systematic protection of children and youth belongs to the important goals of social policy, but also of the policy of national existence." Eugenics clearly inspired his arguments. To improve the situation of children, Foustka advocated social reforms that would improve their living conditions. Moreover, Foustka called for selective marriages which would yield a "healthy, stronger race." Furthermore, he argued for institutionalization of children who were "morally or physically degenerate." Hence, Foustka supported both the improvement of social environment of children as well as selective interbreeding as a method of producing valuable offspring that would be able to better face the challenges of life. Thus, he systematically connected the issue of child welfare with eugenics.²⁵⁵ Consequently, it is no surprise that many child welfare experts and sociologists, including both Beneš and Foustka, were among the founding members of the Czech Eugenic Society that was established shortly after they had published these texts.

Czech Eugenics Society was a part and parcel of the attempt to create institutions for eugenics, driven by the neo-Lamarckians who were in their efforts joined by the by eugenicists with a background in psychiatrists. Already in 1914, the scientific monthly *Revue neuropsychopatologie* [*Revue of Neuropsychopatology*] published by Haškovec and originally dedicated to psychiatry introduced a special section focusing on eugenics. The letter of editors, signed by Růžička and Haškovec made it clear that all views on heredity were welcome on the pages of the monthly. However, this article was immediately followed by a review of Artur's

²⁵⁴ Edvard Beneš, "Ubývání natality a ochrana mládeže [Decreasing Birth Rate and the Protection of Youth]," Ochrana mládeže 5 (No. 1; 1915): 37-40.

²⁵⁵ Břetislav Foustka, *Péče o dítě. Sociální postavení evropské mládeže a její ochrana* [Caring for Children. Social Position of the European Youth and its Protection] (Prague: J. R. Vilímek, 1915).

Brožek's book and an essay "On Mendelism." both authored by Růžička and far from being favorable. They indicated the direction the monthly was to take. In practice, the bulk of the Revue's content in the following years was neo-Lamarckian, and the monthly published articles rather critically engaging with Mendel, Weissmann and Boveri.

In the case of the Czech Eugenics Society, created in May 1915, the impulse for its founding also came from the neo-Lamarckians around Růžička and the psychiatrists. Tellingly, Haškovec became the first president and Růžička the vice-president of the society, while one of Růžička's students and another psychiatrist assumed the role of executive directors.²⁵⁶ While many of the experts concerned with youth welfare and population decided to join the Czech Eugenics Society, the emerging scientific society conversely proclaimed population policy as one of its key goals. In the keynote speech delivered at the founding meeting of the Society, the professor of pedagogy F. Čáda stressed that following the war, population policy would be paramount and emphasized positive eugenics as a means of promoting it. The main goal, he contended, was to support not merely the "quantity" but above all the "quality" of the populace.²⁵⁷ In a declaration "To the Czech People," published shortly thereafter, this argument was developed further. In order to counter the declining birth rate, it was necessary to introduce reform measures to protect the newborns, children and their mothers.²⁵⁸ Thus, the eugenic movement adopted the views which were advanced by Beneš and Foustka.

From the outset, the Czech Eugenic society intensively used popular science to promote its goals. It launched a series of lectures on eugenics and related matters, organized excursions

²⁵⁶ Also, tellingly, the office of the organization was located on the premises of the Institute of General Biology at the Faculty of Medicine. "Lidu českému! [To the Czech People!]," *Revue neuropsychopatologie, therapie, fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 13 (No. 1; 1916): 94.

²⁵⁷ František Čáda, "Úkoly a význam České společnosti eugenické. Úvaha přednesená na ustavující valné hromadě České společnosti eugenické dne 2. 5. 1915 [The Tasks and Importance of the Czech Eugenic Society. A Lecture Delivered at the Constituting Session of the Czech Eugenic Society on the 2nd of May 1915]," *Revue neuropsychopatologie, therapie, fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 12 (No. 2; 1915): 177-185.

²⁵⁸ "Lidu českému!," 93-94.

for interested members of the public, published a number of proclamations related to current issues, and its members embarked on a quest to disseminate eugenic knowledge through numerous pamphlets and articles in journals.²⁵⁹ Importantly, one of the groups the eugenicists tried to reach with a particular vehemence were women. This was a logical step, as the influence of women in the Bohemian society grew substantially during the war. Not only did an unprecedented part of the audience consist of women, as many men were drafted to the army, but women were, moreover, empowered by their changing social roles and social status.²⁶⁰ Furthermore, for obvious reasons women's organizations were less affected by the loss of paying members and could thus prove instrumental in promoting eugenic goals.²⁶¹

The efforts of eugenicists to convince middle class women to join the movement met with a positive response. Women attended in large numbers the events organized by the Society and many also joined the organization.²⁶² Furthermore, and more importantly, influential feminist thinkers suggested their willingness to negotiate the overlaps between the aims of their movement and eugenics. This is no surprise because the recent scholarship indicates many possible overlaps between feminism and eugenics.²⁶³ In particular, many Czech feminists realized that eugenics could provide a language that would justify neo-Malthusian agenda by framing it as beneficial for the survival and strength of the national community. For instance, in an article published in the leading national liberal journal, *Národní listy*, Olga Stránská-Absolonová contended that women's mission consisted in assuring the quality rather than quantity of the offspring. Embracing the idea of inheritance of acquired traits, Stránská-

 ²⁵⁹ See, for instance, the text of Růžička's popular lectures delivered in 1916: Vladislav Růžička, O dědičnosti
 [On Heredity] (Prague: Vilímek, 1917).

²⁶⁰ On the changing gender relations in wartime Bohemia, see Kučera, *Rationed Life*, 94-122.

²⁶¹ Marie Bahenská and Libuše Heczková and Dana Musilová, *Iluze spásy. České feministické myšlení 19. a 20. století* [Illusion of Salvation. Czech Feminist Thought in the 19th and 20th Century] (České Budějovice: Veduta, 2011), 27.

 ²⁶² See e.g. "Exkurse eugenické společnosti [Field Trip of the Eugenic Society]," *Revue neuropsychopatologie, therapie, fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 15 (1918): 431-434.
 ²⁶³ See e.g. Ann Taylor Allen, "Feminism and Eugenics in Germany and Britain, 1900-1940: A Comparative Perspective," *German Studies Review* 23 (No. 3; Oct., 2000): 477-505.

Absolonová argued that the quality of children could be best ensured if women became pregnant only at the age of 24 or later, which would give them time for biological self-improvement. Furthermore, Stránská-Absolonová maintained that women should have the right to decide about their reproduction and thus protect the offspring against the hereditary effects of sexually transmitted diseases and alcoholism. Countering the arguments of conservatives, who frequently framed birth control as an expression of egoism, Stránská-Absolonová used the eugenic language to cast reproductive rights of women as an expression of an altruistic concern for national survival.²⁶⁴

Building bridges between feminism and eugenics had, however, its discontents. The eugenicist František Lašek was the most vocal one. His pamphlet *The Betterment of Mankind: Eugenics* published in 1916 was a sustained attack on feminism which was, according to Lašek, in direct contradiction to eugenicists' aims. Lašek attempted to provoke fear in the reader by claiming that the survival of the Czech nation was threatened by the declining birth rate, among whose chief causes he counted degeneration, and above all, neo-Malthusianism. Concerning the latter, Lašek followed the popular theory of social capillarity formulated by Arsène Dumont and claimed that this attitude was sparked by the growing individualism and that it spread from the higher to the lower classes. Especially women's education and employment were conducive to this development, Lašek opined, quoting the statistical research developed by Alphonse Bertillon. Drawing on a theory that emphasized the key importance of nature in human inheritance, Lašek thus challenged the view that the self-improvement of women was beneficial from the eugenic point of view, as these characteristics could not be inherited. Instead, Lašek

²⁶⁴ Olga Stránská-Absolonová, "Pro štěstí budoucích [For the Happiness of our Posterity]," *Národní listy* (January 30, 1916): 9.

claimed, the effects of women's education and employment were dysgenic, limiting the reproduction of the most valuable individuals.²⁶⁵

A number of prominent feminists, including Juliana Lancová and Stránská-Absolonová, promptly reacted. Significantly, refuting Lašek's claims, they did not decline eugenics as a body of knowledge. Rather, they continued to stress overlaps between eugenics and feminism and the need for cooperation between these two modernist currents. The space for such cooperation was provided, they argued, as long as eugenicists acknowledge the need for social reform and that population decline was to be faced by increasing the quality of the offspring (and thus attenuate the natalist claims).²⁶⁶ It was in the context of this debate when a young physiologist and a member of the eugenic movement Jaroslav Kříženecký formulated his concept of "sociological eugenics." Kříženecký obtained his degree in agricultural science at the Czech Technical University in Prague. In theoretical terms, his scientific profile was formed by the project of developmental mechanics as pursued by Roux and by the experimental culture and theories of inheritance promoted by Viennese experimental biologists Hans Przibram and, especially, Paul Kammerer. In fact, Růžička started corresponding with Kammerer in 1915 and their conversation continued until the latter's death.²⁶⁷ After joining Růžička's institute, Kříženecký connected his previous views with Růžička's physiological theories and quickly acquired the reputation of his most gifted student. Consequently, Kříženecký's views on genetics did not differ substantially from Růžička's. However, while Růžička positioned

²⁶⁵ František Lašek, Zušlechtění lidstva (Eugenika) [The Betterment of Mankind: Eugenics], (Prague: Vilímek, 1916).

²⁶⁶ K [Juliana Lancová], "Česká eugenika a její hlasatel [Czech Eugenics and Its Prophet]," Ženský svět 20 (1916): 246-247; Olga Dokoupilová, "Buďme spravedlivy! [Let us be fair!]," Ženský svět 20 (1916): 302-303; S-a [Olga Stránská-Absolonová], "Studium žen a eugenika [Education of Women and Eugenics]," Naše Doba (1916): 269; Karel Zitko, "Vzdělání žen a potomstvo [Education of Women and the Offspring]," Ženská revue (1917): 6-8.
²⁶⁷ Actually, in the early 1920s, Kříženecký even offered Kammerer a job in one of Czechoslovak research institutions, but Kammerer did not accept the offer. Vítězslav Orel and Anna Matalová, "Kříženeckého chápání Mendelova objevu pod vlivem teorie dědičnosti získaných vlastností [Kříženecký's Understanding of Mendel's Discovery Under the Influence of the Theory of Inheritance of Acquired Characteristics]," Dějiny vědy a techniky 23 (1989): 81.

himself as the chief theorist of Czech genetics, Kříženecký's main aim was clearly to formulate the immediate strategy of the eugenic movement. Thus, his extremely numerous popular articles focused mostly on application of eugenic knowledge in practice.

Kříženecký used the debate with feminist writers as an opportunity to expose his project of "sociological eugenics" which he sought to design in a way so that it could create a broad consensus of diverse reformist movements. Interestingly, Kříženecký built his argument around the notion that eugenics was not a coherent science, but a mere cluster of diverse projects united only by the label eugenics. Kříženecký spoke about various national "roads to eugenics," and proposed that the road taken by the Czech eugenicist had to be different from those taken by the American and the British eugenicists, on the one hand, and the German racial science, on the other hand. According to Kříženecký, different as they were, both of them typified an extremely biological approach to the matter: they made too little a distinction between the functioning of nature and society and reduced humans to their reproductive functions. In his view, "biological eugenics" as epitomized by both American and British eugenics, and even more radically, by German racial hygiene, was thus both reductionist and inhuman.²⁶⁸

Czech eugenics, Kříženecký suggested, needed to go beyond the reductionism of "biological eugenics" and become "sociological." Following Růžička (and Kammerer), Kříženecký championed a theory of inheritance of acquired characteristics that was backed by a concept of a chemically determined metabolism. This perspective transcended the distinction between heritable and non-heritable traits, as all characteristics were imprinted in the same living matter and could theoretically be inherited. From this starting point, Kříženecký's project of "sociological eugenics" consisted essentially of social reforms reshaping the environment that could make nearly every individual more valuable. Yet, even though Kříženecký for

²⁶⁸ Jaroslav Kříženecký, "Eugenika a ženské hnutí [Eugenics and Feminism]," *Revue neuropsychopatologie, therapie, fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 14 (1917): 86-94.

tactical reasons stressed social reforms as the main objective, such a "sociological eugenics" still kept a biopolitical edge. Ultimately, he argued, sterilizations would have to be carried out on some individuals. Kříženecký's eugenics connected the calls for social reforms with population policy that drew on the approach of the Viennese sociologist Rudolf Goldscheid, whose theory was widely accepted by the Viennese Neo-Malthusian socialists and feminists.²⁶⁹ Following Goldscheid's notion of economy of humanity (Menschenökonomie) and his distinction between the "quality" and "quantity" of the populace, Kříženecký argued that the state should not try to increase the birth rate or to exclude women from the labor market. Instead it had to provide women favorable conditions for raising "valuable" children while working: "It is not our task to decide if women should have a job or deliver children, but to enable them to do both. 'The problem facing our time' – Goldscheid rightly argues – 'is how to create an environment that would allow the women to optimally connect motherhood and paid labour."²⁷⁰

Kříženecký thus fused a plaidoyer for emancipation of women with a call for a social reform providing incentives stimulating the number of births. Jay Winter has noticed that such theories emerged in certain contexts in interwar Europe, such as Scandinavia. He argued that this development was a result of a changed strategy of socialist parties which gained political power and strove to promote consensual policies.²⁷¹ However, neither Goldscheid nor Kříženecký wrote in such a context. Neither in Prague, nor in Vienna of 1910s (not to mention Cisleithania as a whole) did the Social democracy have a decisive influence. On top of that, Kříženecký developed his project in the wartime Habsburg empire, where most elected institutions had been shut down. Not engaging in parliamentary politics, Kříženecký however

²⁶⁹ Britta McEwen, *Sexual Knowledge. Feeling, Fact and Social Reform in Vienna, 1900-1934* (New York-Oxford: Berghahn, 2012), 14.

²⁷⁰ Kříženecký, "Eugenika a ženské hnutí," 93.

²⁷¹ Jay M. Winter, "Socialism, Social Democracy, and Population Questions in Western Europe: 1870-1950", *Population and Development Review*, Vol. 14, Supplement: Population and Resources in Western Intellectual Traditions (1988): 122-146.

attempted, by promoting the "sociological eugenics," to forge a consensus which would allow him to put his expert knowledge into practice by engaging the rich fabric of the Bohemian civil society in carrying out the eugenic proposals. Kříženecký's case thus suggests that rather than being a product of a political party's strategy, the main reason behind the emergence of this particular blend of modernist and traditionalist agendas could be found in the attempts of experts to negotiate their projects with social groups which could put them into practice.

Throughout the war, Kříženecký attempted to promote eugenics as the discipline that could formulate biopolitical measures addressing what many considered most pressing issues of the day. Consequently, in an article published in 1916, he argued that promoting the child welfare and thus solving the population question should be the main concern of the eugenic movement. Kříženecký believed that picking up this issue would enable the eugenicists to put their ideas into practice.²⁷² During the war, Kříženecký thus became the most vocal supporter of countering the population decline and promoting child welfare through eugenic measures. Moreover, from 1915 to 1918, Kříženecký launched a series of articles which linked these concerns with the current problems of inhabitants of urban areas in the Bohemian lands. As in other parts of the Habsburg Empire, the provisioning of Bohemian cities encountered serious problems during the war and food shortages became increasingly common.²⁷³ Kříženecký's aim was to raise public awareness of the eugenic (or more precisely, "dysgenic") consequences of this deteriorated environment.

Most importantly, in 1918, Kříženecký published a short book *O smrti hladem a porušování organismu nedostatečnou výživou* (On Death from Starvation and Impairment of the Organism by Malnutrition). In this book, Kříženecký attempted to provide a physiological

²⁷² Jaroslav Kříženecký, "Význam ochrany mládeže a péče o ni pro eugeniku [The Importance of Protection of Youth and Youth Welfare for Eugenics]," *Revue neuropsychopatologie, therapie, fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 13 (No. 1; 1916): 66-71.
²⁷³ Šedivý, Češi, české země a Velká válka, 226.

explanation of what happens when organisms (including humans) die of hunger. Kříženecký drew on the results of research on aging carried out by Růžička and his students. According to Růžička's theory of the "hysteresis of protoplasm,", functioning metabolism generated chemical substances which could not be assimilated by the organism and were consequently stored in the body and thus slowed down its working. Kříženecký developed this argument further by claiming that death from starvation is caused by self-poisoning by certain, unknown toxins. These toxins that are produced by the metabolism of a starving person, accumulate in the body and eventually, they cause lethal damage to the nerve system.²⁷⁴ In this context, he maintained that starving had the most detrimental effect on the growing bodies of children and young people.²⁷⁵

The key argument Kříženecký made was that impact of starving on the bodies of children had crucial eugenic consequences. In this context, it is worthwhile repeating that in terms of theories of heredity, Kříženecký sided with neo-Lamarckism and thus held the view that environment played a significant role in determining heredity. In two articles published in the *Revue neuropatologie* and *Ochrana mládeže* and in his book from 1917, he attempted to defend the neo-Lamarckian theory against the criticism coming from the biologist August Weissmann.²⁷⁶ Following Růžička's arguments against this crucial distinction underlying Mendelism, Kříženecký asserted that there was no separation between the germ plasm and somatic cells: "The organism is a single plasmatic unit and the influences of the external environment provoke changes of the plasm in the organism as a whole, that is, also in the hereditary glands. And we know that what is called heredity is based in the biochemical

²⁷⁴ Kříženecký, *O smrti hladem*, 29.

²⁷⁵ Kříženecký, *O smrti hladem*, 31.

²⁷⁶ Jaroslav Kříženecký, "Weissmannovo učení o kontinuitě a isolovanosti zárodečného plasmatu, otázka dědičnosti získaných vlastností a problém somatické indukce, [Weissmann's Theory of the Continuity and Isolation of the Germ-Plasm, the Question of Inheritance of Acquired Traits and the Problem of Somatic Induction]," *Revue neuropsychopatologie, therapie, fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 13 (No. 1; 1916): 10-24; Jaroslav Kříženecký, "Ochrana mládeže a zdatnost rasy, [Protection of Youth and the Strength of the Race]," *Ochrana mládeže* 8 (No. 3-4; 1918): 125-127 and 160-164.

constitution of the plasm." Thus, the changes in the organism caused by external influences could affect its offspring.²⁷⁷ In this context, the self-intoxication instigated by starving had an impact on the germ plasm and could impair the future offspring. Thus, the starving of children and of youth catalyzed a threat of an individual, and, potentially even, of a collective degeneration.²⁷⁸

Kříženecký's arguments did not, however, remain only at this level of abstraction. In his book, he asserted that at the time he was writing, most of the Czech populace did not receive a sufficient amount of food and was, therefore, "systematically starving."²⁷⁹ On top of that, Kříženecký published an article devoted fully to population development in wartime Prague. There, he stated that the mortality of all age groups, including the newborns and children, has skyrocketed during the war, bearing witness to the deterioration of the living environment.²⁸⁰ However, Kříženecký used every occasion to make it clear that given the plasticity of human beings and the inheritance of acquired characteristics, the degenerative effects of starving were not beyond repair. In the light of his previous analysis, these arguments could be understood as a direct call to a eugenic intervention.

Admittedly, at the time, Kříženecký would have preferred if the imperial institutions realized eugenic goals. Nevertheless, given the absence of support on part of central authorities, Kříženecký was willing to accept an alternative solution, drawing on the resources provided by Czech civil society in Bohemia. During the 19th century, in the dynamically modernizing Bohemia there emerged an extremely rich and varied network of civic associations, fueled by a symbolic competition of the Czech and German inhabitants of the province. It was crucial in

²⁷⁷ Kříženecký, "Ochrana mládeže a zdatnost rasy," 162.

²⁷⁸ Kříženecký, O smrti hladem, 32-36.

²⁷⁹ Kříženecký, O smrti hladem, 36.

²⁸⁰ Jaroslav Kříženecký, "Vliv války na porodnost a úmrtnost v Praze do roku 1915 [The Impact of War on the Birth and Death Rates in Prague until 1915]," *Revue neuropsychopatologie, therapie a fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 14 (No. 1; 1917): 73-86.
this regard that child welfare projects in Bohemia were usually carried out by these civic initiatives and by the local elected authorities.²⁸¹ Thus, Kříženecký agreed with other Czech eugenicists who debated about this issue. Even at the time when the Ministry of Public Health was being set up in Vienna, the most prominent Czech eugenicist, Ladislav Haškovec, maintained that if this ministry fails to meet the demands of Czech eugenicists, "much can be achieved through raising interest for the eugenic question, through education, and through the support of volunteers and private associations."²⁸²

Michal Šimůnek in his recent study has described Czech eugenics as a state-oriented movement, a paradoxical claim indeed for the early years of its existence, when the movement operated in an imperial framework.²⁸³ Furthermore, in a different article, Šimůnek states that before 1918, the Czech eugenics remained almost purely theoretical and found basically no application in the practice.²⁸⁴ These claims are mutually reinforcing. The eugenicists, the argument goes, were state-oriented already before 1918 and had, therefore, no chance of implementing their agenda in the "unfavorable" imperial setting. Thus, Šimůnek's interpretation dovetails to a certain extent with a significant part of the older Czech scholarship that interpreted the early 20th century Czech political history as an inevitable process leading towards the establishment of the national state. The fate of Czech eugenics during the war challenges this somewhat teleological interpretation, as the alignment of the Czech eugenic

²⁸¹ Milena Lenderová and Martina Halířová, and Tomáš Jiránek, Vše pro dítě! Válečné dětství 1914-1918 [Everything in Children's Interest! Wartime Childhood, 1914-1918] (Prague and Litomyšl: Paseka, 2016), passim.

²⁸² Ladislav Haškovec, "Organizace eugenického hnutí v Čechách [Organizing the Eugenic Movement in Bohemia]," *Revue neuropsychopatologie, therapie a fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 14 (No. 3; 1917): 278.

²⁸³ Šimůnek, "Czechoslovakia," 127-190.

²⁸⁴ Michal V. Šimůnek, "Česká eugenika a Velká válka [Czech Eugenics and the Great War]," in Semináře Výzkumného centra pro dějiny vědy z let 2000-2001, ed. Antonín Kostlán (Praha: Výzkumné centrum pro dějiny vědy and Arenga, 2002), 69.

movement was subject to debate and the orientation towards private initiatives existed as an option.

In this section, I argued that during the war, eugenics rose in importance and, at the same time, the neo-Lamarckian eugenicists gained the decisive role in the emerging movement. At the turn of the century, it was becoming increasingly clear that the sciences were undergoing specialization that prevented their proponents to see the larger picture. Most prominently, Max Weber's attempt to make sense of what constituted the essence of "scholarship as a vocation," can be interpreted a response to the growing unease about this progressing "compartmentalization" of knowledge.²⁸⁵ In this context, the interdisciplinary science of eugenics promised to integrate this knowledge and to make more general claims. The sociologist Gil Eyal makes a distinction between "specialist" experts who intervene in the public space in particular issues related to the area of their specialization, and between the "generalist" intellectuals who make much more comprehensive claims regarding the world they are living in.²⁸⁶ One key to eugenicist's success during the war is the fact that its proponents could enjoy at the same time the authority of experts in life sciences and to propose - competing with the "generalist" intellectuals - comprehensive projects of national regeneration. The neo-Lamarckian project of eugenics prevailed over its competitors in the drive for popular support, because it could provide the public with a space for participation, by stressing the importance of social reform and even of charity. Eventually, in the autumn of 1917, a private charity was launched which became the most influential vehicle for realizing the agenda that had been outlined by progressive eugenicists such as Kříženecký.

²⁸⁵ Max Weber, "Science as a Vocation," in *Max Weber: Essays in Sociology*, eds. Hans Gerth and C. Wright Mills (New York: Oxford University Press, 1946), 129–156.

²⁸⁶ Eyal and Buchholz, "From the Sociology of Intellectuals," 117-137.

4.3 Eugenic Agendas and Private Initiatives: The Case of the České srdce

In 1917, some public health professionals, who had been already earlier critical of the worsening provisioning of Prague, started to publish disturbing reports indicating its consequences for public health. Drawing on the knowledge produced by nutrition scientists, and interpreting the available food rations as insufficient both regarding their quality and their quantity, public health experts framed the issue as a deterioration of the already existing population decline and provided data that could be interpreted as proofs of degeneration of the populace.²⁸⁷ Moreover, they attempted to launch an initiative which would raise public awareness of the situation and organize an alternative way of provisioning the city.²⁸⁸ In October 1917, the first session of the newly founded *Committee for saving the Prague populace* (*Komitét na záchranu pražského obyvatelstva*) took place in the Prague City hall. The committee was, however, soon renamed to *Czech Heart* (České srdce; further in the text abbreviated as ČS). Significantly, the key person in this venture was the Prague city doctor Ladislav Procházka, one of the honorary members of the Czech Eugenic Society.²⁸⁹ Thus, the organization had a close link to the eugenic movement.

Early on, the initiative won the support of some public intellectuals as well. Two writers of some renown who stood close to social democracy, Růžena Svobodová and Ivan Olbracht, voiced their concerns about the failing food distribution and wrote alarmingly about the hungry inhabitants of the urban areas, putting a particular emphasis on starving children. They called for a concerted action which would provide the necessary care for the children, thus "preserving

²⁸⁷ Ladislav Procházka, "Některé válečné zkušenosti hygienické a demografické," Časopis lékařů českých 56 (No. 5; February 3, 1917): 179-182; "Pamětné slovo obce Pražské o zásobovací bídě obyvatelstva v hlavním městě českého království," Věstník obecní Královského hlavního města Prahy 24 (No. 18; September 27, 1917): 266; "Z pamětních spisův obce Pražské o zásobovací bídě obyvatelstva v hlavním městě českého království," Věstník Svazu českých 6 (No. 5-6; December 31, 1917): 214.

²⁸⁸ "Ochrana mládeže v Praze [Protection of Youth in Prague]," *Věstník obecní Královského hlavního města Prahy* 24 (No. 20; October 25, 1917): 291.

²⁸⁹ Pět let Českého srdce. 1917-1922 [Fifth Anniversary of the Czech Heart] (Praha: České srdce, 1922), 4.

the nation." Significantly, both authors used eugenic arguments to support their claims. Svobodová suggested that only by saving the children could the existence and the quality of the nation be secured.²⁹⁰ Olbracht contended that the high mortality of Czech children was the greatest "social, national and cultural" problem of the time. He stressed the potential of children for the "national cause," especially given the considerable human losses on the front. In this context, he argued that children from poor families who had been suffering from hunger could have a similar value for the nation as the children stemming from wealthy families: "One cannot claim that a wealthy family which will not die [of hunger] is always more valuable, in intellectual, moral or biological terms, than a poor family and that it thus deserves to be saved at the expense of the others."²⁹¹ Hence, Olbracht's argument clearly echoed the debates in the Czech eugenic community and stood particularly close to the views advanced by Kříženecký.

Eventually, the organizers managed to create around these eugenic ideas a broad coalition of urban and rural social groups. Apart from the medical professionals, some members of the Prague's political elites, and clerks working in the city administration, the ČS was soon joined by many middle-class women, numerous teachers, and some officials of the nationalist sporting organization, Sokol. Most important, however, was the involvement of the Agrarian party, which backed the Czech Heart from the outset and, due to its network of mass organizations, was able to secure keen support for the charity in the countryside. Then, the food was distributed among families or individuals in need, either raw, or in one of the Czech heart's cantinas. Furthermore, the charity organized long-term stays in the countryside for urban children. As the problems with failing provisioning were less felt in the rural areas, the children were supposed to receive better treatment there.

²⁹⁰ Růžena Svobodová, "Nedejme zahynouti [We Cannot Let them Perish]," *Lípa* 1 (No. 2; 1917-1918): 29-30.
²⁹¹ Ivan Olbracht, "Návrh radě českých spisovatelů [A Proposal to the Council of Czech Writers]," *Kmen* 1 (No. 35; November 11, 1917): 1-2.

The activities of the ČS received wide press coverage. Moreover, the main Czech newspapers published numerous articles promoting the organization penned by one of its leaders, the novelist R. Svobodová. In these articles, she maintained that helping the children, apart from being a moral necessity, would also save valuable lives for the community. For instance, in an article "On Prague's children" Svobodová claimed that even in orphanages "there are talented, smart children who should stay alive and should be saved."²⁹² In her pamphlet promoting the initiative, she reiterated a similar argument: "For many years, I observed the life of children on the periphery who had been suffering, then degenerated and were then lost for the nation." It was imperative, therefore, that "every valuable children's life be saved."²⁹³ Thus, the analysis of her texts indicates that the self-promotion of the ČS was based – apart from the Czech nationalism - on eugenic ideas.

Even though it is clear that eugenic arguments played a considerable role in its selfpromotion, it is more difficult to establish to what extent did the organization really carry out the eugenic agenda. The ČS had a complex structure, consisting of a central organization and local branches with varying degrees of autonomy. The papers of the central organization being unavailable, it is necessary to analyze the archives of its local branches. The research I carried out covered the branch of the ČS in Nusle, a middle-class suburb of Prague. The local functionaries of the ČS, mostly teachers, allocated help to children, among other criteria, based on their performance at school.²⁹⁴ Thus, they attempted at assessing the "value" of children for the community, supported the children according to their value and carried out, therefore, what is usually called positive eugenics.

 ²⁹² Růžena Svobodová, "O pražském dítěti [On the Children of Prague]," *Venkov* 13 (No. 156; July 9, 1918): 2-3.
 ²⁹³ Růžena Svobodová, *České srdce. Manifest lásky a činu* [Czech Heart. Manifesto of Love and Deed] (Prague: Rolnická tiskárna, 1918).

²⁹⁴ AHMP, Papers of České srdce – Nusle Branch (Papers of České srdce – Nusle Branch), Minutes of the local commitee, passim.

The ČS, however, did not just carry out positive eugenics, but also had a nationalizing agenda. The recent research, most notably the works of Tara Zahra, has demonstrated that since the second half of the 19th century, the Czech and German nationalists struggled for children, aiming at enrolling them in Czech-, or German-language schools, respectively. Thus, with various success, they targeted at suppressing national indifference. In her book *The Kidnapped Souls*, T. Zahra argued that in the last years of the war, the nationalist initiatives gained ground, as they took over some agendas which the failing state found itself unable to carry out.²⁹⁵ Focusing mostly on educational institutions, Zahra does not mention the ČS in her account. However, due to the high number of its clients (for the numbers, see below), the ČS was one of the most influential initiatives, in this respect. From the outset, it became a tool of nationalizing the populace. Help was provided only for the nationally Czech children. Special emphasis was put on the enrollment in the Czech-language schools, and failure to do so was one of the most frequent reasons why the organization refused to help a child.²⁹⁶ Thus, the charity providing food and furthering eugenic aims also operated as a vehicle of nationalizing the children.

Reviewing the activity of the ČS in the October 1918 issue of the eugenic *Revue*, Jaroslav Kříženecký sounded triumphant. České srdce developed a wide range of initiatives which had a massive impact on the welfare of Prague's inhabitants. The initiative operated 20 restaurants and served over 23 000 meals a day. Furthermore, during the past year, it provided almost 100 000 individuals with food. For many others, the charity prepaid meals in the public cantinas run by local authorities. Moreover, the ČS launched an initiative to send children from Prague to the countryside, where adoptive families took care of them. In this way, according to the figures provided by Kříženecký, almost 20 000 children found a new provisional home. In

²⁹⁵ Tara Zahra, *Kidnapped Souls. National Indifference and the Battle for Children in the Bohemian Lands*, 1900–1948 (Ithaca, NY: Cornell University Press, 2008), 79-106.

²⁹⁶ AHMP, České srdce-Nusle, Minutes of the local commitee, passim; Archiv města Plzně [Pilsen City Archives], České srdce, národní výbor pomocný v Plzni (Papers of České srdce – Pilsen branch), 1917-1919, box 1252, file No. 70, 1918-1919, Zamítnuté žádosti (Declined requests).

addition to that, the ČS aided 3000 pregnant women. On top of that, the ČS also ran three hospitals for children in the vicinity of Prague. Kříženecký viewed the nation as a biological entity and asserted, in a neo-Lamarckian vein, that due to the unfavorable conditions, its health and biological existence was at stake. He saw the importance of the organization's work in the improvement of the living conditions. Thus, for Kříženecký, by securing the "existence of the nation", conceived as a biological entity, the ČS had a paramount eugenic importance.²⁹⁷

The neo-Lamarckian eugenicists had a rather ambiguous trajectory after 1918. The optimism of Kříženecký was soon frustrated after the declaration of independent Czechoslovakia and many eugenicists started regarding the wartime project as a semi-success only. To begin with, the eugenicists became disappointed with eugenics being promoted by civic associations. Paradoxically, the acceptance of eugenics by the civic associations led to a substantial attenuation of its program. Consequently, the eugenicists believed that this need to negotiate forced them to compromise their aims. Kříženecký thus argued in 1919 that "in many cases, mere charity and philanthropism provides the moving force, and less the awareness of the social necessity to care for the biological strength of the nation."²⁹⁸ Furthermore, the main supporter of the organization, the Agrarian Party, lost much of its interest in the ČS and used instead most of its means to secure an influential position in the newly created state institutions. Soon, the mass support for the ČS began to fade. So, in 1919, the number of donations decreased substantially and the organization was struggling to place additional children in the countryside.²⁹⁹ Given the declining influence of the ČS, the Czech eugenic movement soon opted for the cooperation with the Czechoslovak state and started pushing for a stronger support by the state institutions of the eugenic agendas. Thus, in 1919, the Czech eugenics eventually

²⁹⁷ Jaroslav Kříženecký, "Rok činnosti Českého srdce [A Year of Czech Heart's Work]," *Revue neuropsychopatologie, lékařství sociální, dědičnost a eugenika, terapie* 15 (1918): 234-236.

²⁹⁸ Jaroslav Kříženecký, "Organisace vědy: česká eugenika [Organisation of Science: Czech Eugenics]," *Nové Atheneum* 1 (No. 3; 1919): 209-212.

²⁹⁹ Pět let českého srdce, 43.

became a clearly state-oriented eugenic movement. Moreover, it were chiefly the neo-Lamarckians who, shortly before the end of the war, introduced the notion of race (as identical with the nation) into the Czech eugenics. While Růžička used the concept of race to advocate the (state-driven) assimilation of non-Czechoslovak nationalities inhabiting the newly emerging nation state, Kříženecký made a case outright for enhancing the "purity of the Czech race."³⁰⁰ Thirdly, from the early 1920s, that is even before neo-Lamarckism lost much of its prestige following the death of P. Kammerer, the eugenicists started to integrate Mendelism in their theories.³⁰¹

The story of the neo-Lamarckian project of "sociological eugenics" reinforces one of the key arguments of this chapter which, focusing on the early years of the discipline's existence, had the purpose to demonstrate that these were actually marked by radical breaks. Crucially for the argument for this thesis, the case of the neo-Lamarckian project and of its application in the charity České srdce shows that the eugenic theory found its application in food politics at the local level, and its results, in turn, gave an impulse to a further reshaping of the ambiguous body of knowledge that had been promoted as the science about the "betterment of Mankind."

³⁰⁰ Drawing on Chamberlain and interpreting pure race as a basic precondition of the national culture, Kříženecký asserted that "(...) it is, therefore a question, if Czechs could achieve more in cultural terms and experience their national life more fully if they were more racially homogenous; it is a question if we have really exploited the whole potential of our cultural progress and if it was not the long-term racial heterogeneity that, apart from external (political) factors and perhaps more than these, prevented us from achieving more." Vladislav Růžička, "Eugenika a princip demokratický [Eugenics and the Principle of Democracy]," *Budoucno* 1 (No. 1; 1918): 9-15; Jaroslav Kříženecký, "Rasa a národ [Race and Nation]," *Revue neuropsychopatologie, lékařství sociální, dědičnost a eugenika, terapie* 15 (1918): 35-39 and 126-128 and 207-209. ³⁰¹ Orel and Matalová, "Kříženeckého chápání," 83-86.

Conclusion

Not without a reason, the food shortages that became ubiquitous during the First World War are often considered a cause of the dissolution of the Habsburg Empire. Frequently, reference is made in this context to the failure of the central system of distributing resources that had been set up by the government at the early stages of the war. In this thesis, I suggested that in order to understand its workings, and its eventual failure, it was imperative to analyze its functioning at the local level. Consequently, I concentrated here on the case of wartime Prague and examined mainly two groups which assumed a major role in shaping of the politics of food in the Bohemian capital – urban political elites and local experts. Thus, this thesis illuminates the interaction of scientific knowledge and political power at the local, urban level in wartime Austria-Hungary. I argued that three disciplines – agricultural science, nutrition science and eugenics – were crucial in guiding food politics at the local level and were in turn reshaped by its challenges. By linking the history of the three scientific fields to the context of the city in which they were located, this thesis positions itself as an urban history of science in wartime Prague.

Such a perspective allowed me to revisit the debates about the role of experts, urban political elites and the history of science in wartime Bohemia. Regarding urban politics, this thesis analyzed the impact of knowledge produced by three scientific fields both on the discourse and practices of urban political elites. I suggested that at the outset of the war, the position of the urban political elites was marked by a tension between their claims to representativeness and the exclusionary character of their policies. On the one hand, they emphasized that they were the only elected representatives of Prague's populace who remained in power during the war. On the other hand, they epitomized an elite group that had been until then deeply mistrustful of representative politics and popular participation. Before the war, therefore, Prague's urban political elites avoided more ambitious welfare policies and the local population was relatively worse off in this respect than in many other cities of the Empire. Yet, I argue here that the outbreak of the war brought a major shift in urban political elites' attitude toward the urban populace and consequently, of their policies. Increasingly, these policies started catering for the needs of women, lower-class urban dwellers, and of the populace who lived in Prague agglomeration's formally independent suburbs. Consequently, Prague's urban elites launched a series of large-scale welfare measures during the war. In these efforts, I suggest, they were motivated not only by the traditional fears of famine, epidemics and of social unrest, but by expert knowledge produced by agriculturalists and nutrition scientists, as well. Even though the year 1918 brought an elite change, it thus marked rather a continuity of wartime welfare policies.

Concerning the history of science, I offer a new reading of the wartime history of three life sciences in Bohemia – agricultural science, nutrition science, and eugenics by locating their development in the urban space and social and political context. Such a contextualization, I argue, makes it possible to discern ruptures at a time in which the existing scholarship tends to see a continuity. These breaks were always precipitated by debates on issues relating to food and the implications of its shortage. In agricultural science, the debate on the prospects of Habsburg agriculture unfolded in 1914 between experts trying to create positive and negative expectations of the readers regarding the availability of food at the later stages of the war. In the course of the debate featuring – most prominently – the agriculturalists Julius Stoklasa and Karel Viškovský, the previous consensus between these experts about most tactical and strategic questions broke down. Eventually, by addressing the issue of the "minimum calorie intake" the controversy spread into nutrition science. There, it fueled the disagreement between those scientists who imagined the body as a modern engine, efficient and subject to external laws, and those who perceived it as an autonomous system. With scientists trying to win support for their theory using the vehicle of popular pamphlets, this debate also forcefully entered the public sphere. One of the main problems was what constituted the optimal nutrition, both in terms of its quality and quantity. Finally, in eugenics, a major contest for the identity of Czech eugenics between the theory of hard and soft heredity was exacerbated by their reaction to the impact of the population losses and effects of starvation on human bodies. In the end, a blueprint of a "sociological eugenics" emerged triumphant that was based on neo-Lamarckian theory of heredity, positive eugenic measures and argued for environmental reforms. Thus, I demonstrate that far from producing one monolithic "natural science discourse," the scientific fields in question were marked by a vivid competition between opposed theories. Crucially, I argue that in all cases the theories that informed the policies at the central level were distinct from the theories that guided the local practices.

Engaging with the debate on experts, I analyze their interventions in the public sphere and explain their modalities by pointing to the experts' position in the scientific field. By implication, I thus illuminate the changing nature of the wartime public sphere. I argue that the First World War was a moment when the experts gained prominence in the Czech public sphere. Their rise was closely linked with censorship practices that constrained the public debate. Soon, classical intellectuals' role in the Czech public sphere was curtailed, if they were not fully excluded from it. While the classical intellectuals thus lost much of their importance, scientists using their authority as a justification of their interventions, and couching their arguments in a specialist language, could speak in public qua experts, thus bypassing the censorship. Given the exclusive status of higher education at the time and its ensuing prestige, they intervened in all cases as individuals, without forming larger expert bodies. Very importantly, moreover, scientific fields such as agricultural science, physiology and eugenics retained much of their previous autonomy. Opting for the role of a "prophet," rather than that of a "priest" – to follow Max Weber's distinction – many of these experts used this opportunity to debate political questions, such as food shortage, and to challenge the policies of the state authorities. Thus, I suggest that the rise of experts as critical voices in the public sphere and their growing influence was a result of a synchronicity of the tight constraints imposed on the public sphere by the authorities and of the enduring autonomy of science that was, moreover, increasingly defining itself in national terms. At the end of the war, most of these experts, such as eugenicists, linked themselves to the emerging national state or, as in the case of the public health expert F. P. Procházka, reframed themselves as public intellectuals. Their rise in importance was indicative of the crucial role the experts were to play in 20th century Czechoslovakia.

Furthermore, assuming the perspective of urban history of science, this thesis examined three issues germane to the links between these two phenomena. Firstly, it demonstrated that public lectures, pamphlets and newspaper op-eds, in short: scientific popularization played a crucial role as a vehicle of expert interventions in the public sphere of wartime Bohemia. This, however, was not without consequences for the sciences in question. Most critically in the case of eugenics, the consumers of popular science raised demands, challenged the existing theories and thus in a mediated manner participated in the production of eugenic knowledge. Secondly, all scientific fields discussed here produced representations of the city. Crucially, these representations fashioned for local consumers were strikingly alarmist, featuring shortage, starvation, and racial degeneration. Thirdly, all the sciences in question guided the policies at the local level, although each in the particular manner. While agricultural science formed the expectations of the actors through forecasts, and nutritional science provided norms for the institutions dealing with food supply and distribution, eugenics informed the actions of the civic groups and through their pressure, also of the local authorities. Despite these differences, I argue, the challenges of food politics proved to be the key factor that influenced the development of these scientific fields during the war.

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The analysis of the controversies in the Czech agricultural science, nutrition science, and eugenics and of their impact on the urban political elites' policies sheds light on the wartime politics of food in the Habsburg Empire. I contend that far from being directed only from the center, food politics was a result of a complex negotiation of various actors operating not merely at the imperial, but also at the local level. Defining the norms, safeguarding the supplies, and setting up the mechanisms of distribution, local experts and local political elites played a key role in shaping it. Crucially, I argue, the case of the interaction between expert knowledge and urban politics in Prague agglomeration thus suggests that the system of distributing food in the wartime Habsburg Empire was less centralized and more local than the name of its most visible institutions – *Zentralen* – would perhaps make us believe. Consequently, mapping the multiple local varieties of this "central" system of distributing resources and of their effects could produce unexpected results and help us understand better the dissolution of the Empire.

Bibliography

Primary sources

1. Archival Documents

Archiv města Plzně [Pilsen City Archives] (Pilsen).

Fond České srdce, národní výbor pomocný v Plzni ["Czech Heart – National Charitable Commitee, Pilsen branch" Fund].

Archiv Hlavního Města Prahy [Prague Municipal Archives] (Prague).

Fond Archiv města Karlín ["Archives of the City of Karlín" Fund]

Fond Archiv města Nusle ["Archives of the City of Nusle" Fund]

Fond Archiv města Vysočany ["Archives of the City of Vysočany" Fund]

Fond Archiv města Vršovice ["Archives of the City of Vršovice" Fund]

Fond České srdce - místní skupina Nusle ["Czech Heart – Local Group in Nusle" Fund]

Fond Magistrát hlavního města Prahy I. ["Prague's Magistrate I." Fund], Referát XVI – Zásobovací [Section XVI - Provisioning].

Fond Okresní zastupitelstvo Smíchov ["Self-Government of Smíchov Region" Fund]

2. Newspapers and Magazines Beseda Učitelská [The Teachers' Word]

Biologické listy [The Biological Papers]

Budoucno [Future]

Časopis české společnosti entomologické [The Journal of Czech Entomological Society]

Časopis lékařův českých [The Journal of Czech Physicians]

Česká revue [Czech Revue]

Kmen [The Trunk/Tribe]

Lípa [The Lime Tree]

Národní listy [The National Newspaper]

Naše Doba [Our Epoch]

Nové Atheneum [The New Atheneum]

Ochrana mládeže [The Protection of Youth]

Pražská lidová revue [Prague Popular Revue]

Revue v neuropsychopathologii, therapii, veřejné hygieně a lékařství sociálním [The Review of *Neuropsychopathology*, Therapy, Public Health, and Social Medicine]

Venkov [The Countryside]

Věstník obecní Královského hlavního města Prahy [The Municipal Gazette of the Royal Capital City Prague]

Věstník Svazu českých měst v království Českém [The Bulletin of the Union of Czech Towns in the Kingdom of Bohemia]

Vinohradské listy [The Vinohrady Review]

Ženská revue [Woman's Revue]

Ženský svět [Woman's World]

Živa, časopis přírodnický [Life. Journal on Nature].

3. Published Primary Sources

"Exkurse eugenické společnosti [Field Trip of the Eugenic Society]." *Revue neuropsychopatologie, therapie, fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 15 (1918): 431-434.

"K otázce zásobování a drahoty [On the Question of Provisioning and Poverty]." Věstník Svazu českých měst v království Českém 4, (No. 7-8; February 28, 1915): 223.

"K zahájení činnosti České komunální ústředny hospodářské pro království České [The Joint Enterprise of Czech Cities Starts Business]." *Věstník Svazu českých měst v království Českém* 6 (No. 1-2; March 1, 1916): 48.

"Lidu českému! [To the Czech People!]." *Revue neuropsychopatologie, therapie, fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 13 (No. 1; 1916): 93-94.

"Měsíční zpráva o nakažlivých nemocech [Monthly Report on Contagious Diseases]." *Věstník obecní Královského hlavního města Prahy* 22 (January 14, 1915): 12.

"Mimořádný sjezd českých měst z království Českého [Extraordinary Summit of Czech Cities of the Kingdom of Bohemia]." *Věstník Svazu českých měst v království Českém* 5 (No. 3-4; August 31, 1915): 73-74.

"Návrh na zřízení České komunální ústředny hospodářské pro království České [Proposal to Establish a Joint Enterprise of Czech Cities in the Kingdom of Bohemia]." *Věstník Svazu českých měst v království Českém* 5 (No. 5-6; December 31, 1915): 137-38.

"Nový nepřítel Prahy [Prague's New Enemy]." Národní listy 55 (No. 113; April 24, 1915): 1.

"Obecní chov králíků na Petříně, [Breeding Municipal Rabbits at the Laurenziberg]." *Věstník obecní Královského hlavního města Prahy* 22 (No. 17; September 2, 1915): 223.

"Obilní komory rakousko-uh. a výživa lidu za války [Granaries of Austria-Hungary and the Nutrition of the Populace during the War]." *Národní listy* 54 (No. 307; November 8, 1914): 7.

"Ochrana mládeže v Praze [Protection of Youth in Prague]." *Věstník obecní Královského hlavního města Prahy* 24 (No. 20; November 25, 1917): 291.

"Pamětné slovo obce Pražské o zásobovací bídě obyvatelstva v hlavním městě českého království [Memorandum submitted by the Commune of Prague on the Poverty Caused by Provisioning in the Capital of the Czech Kingdom]." *Věstník obecní Královského hlavního města Prahy* 24 (No. 18; September 27, 1917): 265-273.

"Pěstování plodin k výživě obyvatelstva na obecních pozemcích [Producing Food for Prague's Population on Municipal Premises]." *Věstník obecní Královského hlavního města Prahy* 22 (No. 9; May 13, 1915): 142-143.

"Pomocná akce Královských Vinohrad [The Charitable Action by Královské Vinohrady]." *Vinohradské listy* 29 (No. 33; August 14, 1914): 1.

"Porada zástupců Velké Prahy o společném postupu v otázkách zásobovacích [Debate of Representatives of Prague Agglomeration on the Common Policies Regarding the Questions of Provisioning]." *Věstník obecní Královského hlavního města Prahy* 24 (No. 7; April 6, 1917): 102.

"Praha v době válečné [Prague at the Time of War]." Věstník obecní Královského hlavního města Prahy 21 (September 17, 1914): 281-293.

"Proslov p. presidenta republiky T. G. Masaryka [The Speech Delivered by the President T. G. Masaryk]." In Věstník prvního říšského sjezdu československých učitelů vysokých škol [Bulletin of the First Country-wide Conference of Czechoslovak University Teachers], edited by Antonín Beer and František Kadeřávek, 60-1. Prague: Ed. Grégr, 1922.

"Review of 'Karel Viškovský, Válka a obilí."" Národní listy 54 (November 15, 1914): 10.

"Samospráva v době válečné [Self-Administration in the Time of War]." *Věstník Svazu českých měst v království Českém* 4 (No. 7-8, 28. 2. 1915): 205-209.

"Ustavení České komunální ústředny hospodářské [The Joint Enterprise of Czech Cities Established]." *Věstník Svazu českých měst v království Českém* 6 (No. 1-2; March 1, 1916): 29-32.

"Z pamětních spisův obce Pražské o zásobovací bídě obyvatelstva v hlavním městě českého království [Extracts from Memorandums on the Poor Provisioning of the Population in the Capital of the Kingdom of Bohemia submitted by the Prague Municipality]." *Věstník svazu českých měst* 6 (No. 5-6; December 31, 1917): 214.

"Zásobovací poměry v Praze a ve Vídni [The Provisioning of Prague and Vienna]." *Aprovisační věstník král. hlav. města Prahy* 1 (No. 2; November 1, 1916): 6-7.

"Zásobování města v době válečné [Wartime Provisioning of the City]." *Věstník obecní Královského hlavního města Prahy* 21 (No. 21; December 3, 1914): 406.

"Zpráva městského fysikátu o zdravotních poměrech ve Velké Praze [The Report of the Office of the City Physician concerning the Health Conditions in the Great Prague]." *Věstník obecní Královského hlavního města Prahy* 22 (No. 8; April 1915): 123-124.

"Zprávy o chmeli [Reports on Hops]." *Hospodářsko-chmelařský věstník* 2 (No. 8; August 30, 1893): 37.

Aprovisace obce pražské za války a po válce. 1914-1922 [A Report on Wartime and Postwar Provisioning of Prague, 1914-1922]. Prague: Aprovisační ústavy hlavního města Prahy, 1923.

Babák, Edward. *O proměnách energií u živých těl* [On Transformations of Energies in Human Bodies]. Prague: Vilímek, 1917.

Babák, Edward. Výživa rostlinami [Vegetable Diet]. Prague: Topič, 1917.

Beneš, Edvard. "Ubývání natality a ochrana mládeže [Decreasing Birth Rate and the Protection of Youth]." *Ochrana mládeže* 5 (No. 1; 1915): 37-40.

Brožek, Artur. "C. B. Davenport: Eugenika. Nauka o ušlechtění lidstva dokonalejším křížením [C. B. Davenport: Eugenics, A Science of Improvement of Mankind by Improved Crossbreeding]." *Živa* 22 (No. 1-3; 1912): 8-10, 44-47, 78-80.

Brožek, Artur. "*Eugenika. Nauka o zušlechtění a ozdravění lidu založená na pravidlech dědičnosti* [Eugenics: The Science of Betterment and Sanitation of Population Based on the Rules of Heredity]." *Pražská lidová revue* 8 (No. 6; 1912): 173-179.

Brožek, Artur. "O mendelismu [On Mendelism]." Časopis české společnosti entomologické 5 (No. 4; 1909): 118-148.

Brožek, Artur. "O variabilitě výkonnosti a cviku [On Variability of Efficiency and Training]." *Biologické listy* 1 (1912): 1-8.

Brožek, Artur. "Ukázky z experimentální biologie: mendelism, dědičnost a variabilita [Essays in Experimental Biology: Mendelism, Heredity and Variability]." *Beseda Učitelská* 42 (1910): 1-60.

Brožek, Artur. Zušlechtění lidstva: Eugenika [Improvement of Mankind: Eugenics]. Prague: Topič, 1914.

Čáda, František. "Úkoly a význam České společnosti eugenické. Úvaha přednesená na ustavující valné hromadě České společnosti eugenické dne 2. 5. 1915 [The Tasks and Importance of the Czech Eugenic Society. A Lecture Delivered at the Constituting Session of the Czech Eugenic Society on May 2, 1915]." *Revue neuropsychopatologie, therapie, fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 12 (No. 2; 1915): 177-185.

Dokoupilová, Olga. "Buďme spravedlivy! [Let us be fair!]." Ženský svět 20 (1916): 302-303.

Foustka, Břetislav. *Péče o dítě. Sociální postavení evropské mládeže a její ochrana* [Caring for Children. Social Position of the European Youth and its Protection]. Prague: Vilímek, 1915.

Foustka, Břetislav. *Slabí v lidské společnosti: ideály humanitní a degenerace národů* [The Weak in the Human Society: The Ideals of Humanität and Degeneration of Nations]. Prague: Laichter, 1904.

Haškovec, Ladislav, and Růžička, Vladislav. "Úvodem [Introduction]." *Revue v* neuropsychopathologii, therapii, verejné hygiene a lékarství sociálním 11 (1914): 147.

Haškovec, Ladislav. "Organizace eugenického hnutí v Čechách [Organizing the Eugenic Movement in Bohemia]." *Revue neuropsychopatologie, therapie a fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 14 (1917): 272-279.

Haškovec, Ladislav. "Zdravotnictví veřejné a smlouva manželská – referát z mezinárodního sjezdu v Lisaboně [Public Healthcare and Marital Contract – Report from an International Congress in Lisbon]." Časopis lékařů českých 65 (1906): 798-801.

Haškovec, Ladislav. *O příčinách chorob nervových a duševních a kterak jim předcházet* [On the Causes of Nervous and Mental disorders And how to Prevent them]. Prague: Otto, 1900.

Haškovec, Ladislav. Ochrana mládeže [Protecting the Youth]. Prague: Otto, 1909.

Haškovec, Ladislav. Snahy eugenické [Eugenic Efforts]. Prague: Otto, 1912.

Haškovec, Ladislav. *Snahy veřejně zdravotnické v otázce smlouvy manželské* [Efforts of Public Healthcare Concerning the Issue of Marital Contract]. Prague: Otto, 1902.

Heller, Servác. *Válka z roku 1866 v Čechách, její vznik, děje a následky* [The War of 1866 in Bohemia: Its Emergence, Events, and Consequences]. Prague: E. Beaufort, 1896.

Herfort, Karel. "Eugenický význam vrozené slabomyslnosti a prvé výsledky prací v tom směru vykonaných eugenickou stanicí při Ernestinu [Eugenic Importance of Innate Feeblemindedness and First Results of Works Undertaken by the Eugenic Record Office at Ernestinum]." *Revue neuropsychopatologie, therapie, fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 12 (1915): 447-463.

Herfort, Karel. "Jak pohlížeti na dítě slabomyslné se stanoviska biologického [Interpreting Feebleminded Children from a Biological Perspective]." *Revue v neurologii, psychiatrii, fysické a dietetické therapii* 4 (Aug.-Sept., 1909): 380-383.

Janko, Jan. *Vznik experimentální biologie v Čechách, 1882-1918* [The Emergence of Experimental Biology in Bohemia, 1882-1918]. Prague: Academia, 1982.

Joachim, Václav. *Reforma správy veřejné a budoucnost samosprávy* [The Reform of Public Administration and the Future of Self-Government]. Prague: Řívnáč, 1916.

Kříženecký, Jaroslav. "Eugenika a ženské hnutí [Eugenics and Feminism]." *Revue neuropsychopatologie, therapie, fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 14 (1917): 86-94.

Kříženecký, Jaroslav. "Ochrana mládeže a zdatnost rasy [Protection of Youth and the Strength of the Race]." *Ochrana mládeže* 8 (1918): 125-127, 160-164.

Kříženecký, Jaroslav. "Organisace vědy: česká eugenika [Organisation of Science: Czech Eugenics]." *Nové Atheneum* 1 (No. 3; 1919): 209-212.

Kříženecký, Jaroslav. "Otázka dědičnosti získaných vlastností, její význam pro praxi eugenickou a úkoly politiky sociální [The Question of Inheritance of Acquired Characteristics, its Importance for Eugenic Practice and the Objectives of Social Policy]." *Česká revue* 1914-1915 (1915): 719-728.

Kříženecký, Jaroslav. "Rasa a národ [Race and Nation]." *Revue neuropsychopatologie, lékařství sociální, dědičnost a eugenika, terapie* 15 (1918): 35-39, 126-128, 207-209.

Kříženecký, Jaroslav. "Rok činnosti Českého srdce [A Year of Czech Heart's Work]." *Revue neuropsychopatologie, lékařství sociální, dědičnost a eugenika, terapie* 15 (1918): 234-236.

Kříženecký, Jaroslav. "Vliv války na porodnost a úmrtnost v Praze do roku 1915 [The Impact of War on the Birth and Death Rates in Prague until 1915]." *Revue neuropsychopatologie, therapie a fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 14 (1917): 73-86.

Kříženecký, Jaroslav. "Význam ochrany mládeže a péče o ni pro eugeniku [The Importance of Protection of Youth and Youth Welfare for Eugenics]." *Revue neuropsychopatologie, therapie, fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 13 (1916): 66-71.

Kříženecký, Jaroslav. "Weissmannovo učení o kontinuitě a isolovanosti zárodečného plasmatu, otázka dědičnosti získaných vlastností a problém somatické indukce [Weissmann's Theory of the Continuity and Isolation of the Germ-Plasm, the Question of Inheritance of Acquired Traits and the Problem of Somatic Induction]." *Revue neuropsychopatologie, therapie, fysikální medicína, veřejná hygiena, lékařství sociální, dědičnost a eugenika* 13 (1916): 10-24.

Kříženecký, Jaroslav. *O smrti hladem a porušování organismu nedostatečnou výživou* [On Death from Starvation and Impairment of the Organism by Malnutrition]. Prague: Otto, 1918.

Lancová, Juliana [K]. "Česká eugenika a její hlasatel [Czech Eugenics and Its Prophet]." *Ženský svět* 20 (1916): 246-247.

Lašek, František. *O dědičnosti a jejím významu pro úpadek a zachování lidstva* [On Heredity and Its Importance for the Decline and Preservation of Mankind]. Prague: Otto, 1910.

Lašek, František. *Zušlechtění lidstva (Eugenika)* [The Betterment of Mankind: Eugenics]. Prague: Vilímek, 1916.

Mareš, František. *O výživě člověka: Dvě veřejné přednášky* [On Human Nutrition: Two Popular Lectures]. Prague: F. Mareš, 1889.

Mareš, František. *Výživa člověka ve světle fysiologie* [The Human Nutrition in the Light of Physiology]. Prague: Otto, 1915.

Olbracht, Ivan. "Návrh radě českých spisovatelů [A Proposal to the Council of Czech Writers]." *Kmen* 1 (No. 35; November 11, 1917): 1-2.

Pelnář, Josef. "Omezování a zakazování sňatků z důvodů eugenických [Restricting and Prohibiting Marriages for Eugenic Reasons]." *Časopis lékařů českých* 58 (Nov., 1919): 925-927.

Pět let Českého srdce. 1917-1922 [Fifth Anniversary of the Czech Heart]. Prague: České srdce, 1922.

Procházka, Ladislav. "Některé válečné zkušenosti hygienické a demografické [Some Wartime Hygienic and Demographic Experiences]." *Časopis lékařů českých* 56 (No. 5; February 3, 1917): 179-183.

Růžička, Vladislav. "Eugenika a princip demokratický [Eugenics and the Principle of Democracy]." *Budoucno* 1 (No. 1; 1918): 9-15.

Růžička, Vladislav. *Dědičnost u člověka ve zdraví a nemoci* [Heredity in Healthy and Ill Humans]. Prague: Otto 1917.

Růžička, Vladislav. *Hlad. Jeho působení na organismus a děje životní* [Hunger: Its Effect on Organism and Life Processes]. Prague: Vilímek, 1916.

Růžička, Vladislav. *Morfologický metabolismus živého protoplasmatu* [Morphological Metabolism of the Living Protoplasm]. Prague: Česká akademie císaře Františka Josefa pro vědy, slovesnost a umění, 1906.

Růžička, Vladislav. *Nárys učení o dědičnosti. Pro studující, lékaře, učitelstvo a profesory škol středních a hospodářských* [Theory of Inheritance in Outline. For Students, Physicians, Teachers and Professors]. Prague: Hynek, 1914.

Růžička, Vladislav. O dědičnosti [On Heredity]. Prague: Vilímek, 1917.

Růžička, Vladislav. Review of "Artur Brožek: Zušlechtění lidstva." *Revue v* neuropsychopathologii, therapii, veřejné hygieně a lékařství sociálním 11 (1914): 152.

Šebesta, Eduard. "Praha před sto lety [Prague One Hundred Years Ago]." *Věstník obecní Královského hlavního města Prahy* 22 (28. 1. and 11. 2. 1915): 24-25, 39-42.

Stoklasa, Julius. "Der Stand der Brotfrage in Deutschland und Oesterreich-Ungarn während des Krieges [The Situation of the Bread Issue in Germany and Austria-Hungary during the War]." *Chemiker-Zeitung* 39 (No. 43-44 and 46-47, 1915): 274 and 297.

Stoklasa, Julius. "Eine ausreichende Bodenproduktivität Oesterreich-Ungarns für den Nahrungsmittelbedarf [The Soil Productivity in Austria-Hungary is Sufficient for the Nutritional Needs]." *Neue Freie Presse* 50 (19. 9. 1914): 9-10.

Stoklasa, Julius. "Postačuje zemědělská výroba v Rakousku-Uhersku spotřebě potravin? [Does the Agricultural Production in Austria-Hungary Cover the Food Consumption?]." *Národní listy* 54 (August 26, 1914): 1-2.

Stoklasa, Julius. "Prameny výživy obyvatelstva v době války [Sources of Nutrition of the Populace during the War]." *Venkov* 9 (December 11, 1914): 5.

Stoklasa, Julius. *Boj o chléb. Odpověď*. [Struggle for Bread. A Rejoinder]. Tábor: Frank, 1915.

Stoklasa, Julius. *Entspricht die jetzige Broterzeugung den modernen biochemischen Forschungen der menschlichen Ernährung?* [Does the Current Bread Production Comply with the Modern Biochemical Research in Human Nutrition?]. Sonderabdruck aus der Deutschen medizinischen Wochenschrift. Leipzig: Georg Thieme, 1915.

Stoklasa, Julius. *Výživa obyvatelstva ve válce!* [Feeding the Population at War]. Prague: Stoklasa, 1916.

S[tránská]-A[bsolonová], Olga, "Studium žen a eugenika [Education of Women and Eugenics]." *Naše Doba* (1916): 708-13.

Stránská-Absolonová, Olga. "Pro štěstí budoucích [For the Happiness of our Posterity]." *Národní listy* 56 (No. 30; January 30, 1916): 9.

Svobodová, Růžena. "Nedejme zahynouti [We Cannot Let them Perish]." *Lípa* 1 (No. 2; 1917-1918): 29-30.

Svobodová, Růžena. "O pražském dítěti [On the Children of Prague]." *Venkov* 13 (No. 156; July 9, 1918): 2-3.

Svobodová, Růžena. *České srdce. Manifest lásky a činu* [Czech Heart. Manifesto of Love and Deed]. Prague: Rolnická tiskárna, 1918.

Viškovský, Karel. "Obilní tržba a spotřebitelé [Corn Market and the Consumers]." *Venkov* 9 (September 27, 1914): 3.

Viškovský, Karel. Boj o chléb [Struggle for Bread]. Prague: Reinwart, 1915.

Viškovský, Karel. *Pojišťování krupobitní v Čechách: jeho nedostatky a náprava* [Crop-Hail Insurance in Bohemia: Its Shortcomings and Reform]. Prague: Eduard Beaufort, 1897.

Viškovský, Karel. *Válka a obilí. Příspěvek k časové otázce* [War and Corn. A Contribution to a Timely Problem]. Prague: Neubert, 1914.

Vznik a činnost kuchyní komitétu pro stravování méně majetného obyvatelstva v létech 1916-1920 [The Emergence and Activity of Public Kitchens Run by the Committee for the Nutrition of Less Wealthy Population, 1916-1920]. Prague: Komitét pro stravování méně majetného obyvatelstva, 1920.

Zíbrt, Čeněk. *Česká kuchyně za dob nedostatku před sto lety* [Bohemian Cuisine in the Times of Shortage a Century Ago]. Prague: Neubert, 1917.

Zitko, Karel. "Vzdělání žen a potomstvo [Education of Women and the Offspring]." Ženská revue 12 (1917): 6-8.

Secondary Documents

Adams, Mark B., ed. *The Wellborn Science: Eugenics in Germany, France, Brazil, and Russia.* New York: Oxford University Press, 1990.

Adorno, Theodor, and Horkheimer, Max. Dialectic of Enlightenment. London: Verso, 1986.

Albrecht, Catherine. "The Influence of Albín Bráf." In *Albín Bráf: Politik, národohospodář a jeho doba* [Albín Bráf: Politician, Economist and His Time], ed. Antonie Doležalová, 13-20. Prague: Studie Národohospodářského ústavu Josefa Hlávky, 2013.

Albrecht, Catherine. "Two Czech Economists: Albín Bráf and Josef Kaizl." *East Central Europe* 19 (No. 1; 1992): 1-15.

Allen, Ann Taylor. "Feminism and Eugenics in Germany and Britain, 1900-1940: A Comparative Perspective." *German Studies Review* 23 (No. 3; Oct., 2000): 477-505.

Bahenská, Marie, and Heczková, Libuše, and Musilová, Dana. *Iluze spásy. České feministické myšlení 19. a 20. století* [Illusion of Salvation. Czech Feminist Thought in the 19th and 20th Century]. České Budějovice: Veduta, 2011.

Beachy, Robert, and Roth, Ralph, eds., *Who Ran the Cities?: City Elites and Urban Power Structures in Europe and North America*, 1750-1940. Aldershot: Ashgate, 2007.

Blattný, Ctibor. "Artur Brožek jako středoškolský profesor [Artur Brožek in the Role of High School Teacher]." *Vesmír* 55 (April, 1976): 122.

Bourdieu, Pierre. Practical Reason: On the Theory of Action. Cambridge: Polity, 1998.

Bowler, Peter. "Popular Science." In *The Cambridge History of Science*, edited by Peter J. Bowler and John V. Pickstone, 622-634. Cambridge: Cambridge University Press, 2009.

Brubaker, Rogers, and Cooper, Frederick. "Beyond 'Identity'." *Theory and Society* 29 (2000): 1-47.

Brüne, Martin. "Ladislav Haskovec and 100 Years of Akathisia." In *The American Journal of Psychiatry* 159 (May, 2002): 727.

Buchholz, Larissa and Eyal, Gil. "From the Sociology of Intellectuals to the Sociology of Interventions." *Annual Review of Sociology* 36 (Aug., 2010): 117-137.

Canguilhem, Georges. The Normal and the Pathological. New York: Zone Books, 1991.

Charle, Christophe. Birth of the Intellectuals: 1880-1900. Cambridge: Polity, 2015.

Chickering, Roger. *The Great War and Urban Life in Germany: Freiburg, 1914-1918.* Cambridge: Cambridge University Press, 2007.

Collins, Harry M., and Evans, Robert. "The Third Wave of Science Studies: Studies of Expertise and Experience." *Social Studies of Science* 32 (no. 2; 2002): 235-296.

Davis, Belinda. *Home Fires Burning. Food, Politics, and Everyday Life in World War I Berlin.* Chapel Hill - London: The University of North Carolina Press, 2000.

Dierig, Sven, and Lachmund, Jens, and Mendelsohn, Andrew J. "Introduction: Toward an Urban History of Science." *Osiris* 18 (2003): 1-19.

Doležalová, Antonie. "Od Albína Bráfa k Josefu Mackovi – příspěvek k výročí úmrtí dvou významných českých ekonomů [From Albín Bráf to Josef Macek – A Contribution to the Anniversary of the Death of Two Significant Czech Economists]." *Politická ekonomie* 61 (No. 3; 2013): 428-38.

Donelli, Gianfranco, and Di Carlo, Valeria. *La sanità pubblica italiana negli anni a cavallo della Prima Guerra Mondiale* [The Italian Public Health at the Time of the First World War]. Rome: Armando, 2016.

Fasora, Lukáš, and Kladiwa, Pavel. "Obecní samospráva a lokální elity českých zemí, 1850– 1918. Dílčí výsledky výzkumu v České republice [Municipal Self-Administration and Local Elites in the Bohemian Lands, 1850-1918]." In *Občanské elity a obecní samospráva 1848– 1948* [Civic Elites and Municipal Self-Administration, 1848-1948], ed. Lukáš Fasora, Jiří Hanuš and Jiří Malíř, 11–40. Brno: CDK, 2006.

Fasora, Lukáš. Svobodný občan ve svobodné obci? Občanské elity a obecní samospráva města Brna 1851-1914 [Free Citizen in a Free Community? Civic Elites and Urban Administration in Brünn, 1851-1914]. Brno: Matice Moravská, 2007. Foucault, Michel. "Society Must Be Defended" Lectures at the Collége de France, 1975-76. New York: Picador, 2003.

Freeden, Michael. "Concepts, ideology and political theory." In *Herausforderungen der Begriffsgeschichte* [The Challenges of Conceptual History], edited by Carsten Dutt, 51-63. Heidelberg: Winter, 2003.

Giustino, Cathleen M. "Parteien, Politik, Demokratie und der Prager Kompromiss von 1896 [Political Parties, Politics, Democracy and the Prague Compromise of 1896]." In *Wien – Prag – Budapest: Blütezeit der Habsburgermetropolen. Urbanisierung, Kommunalpolitik, gesellschaftliche Konflikte, 1867-1918* [Vienna – Prague – Budapest: The Flourishing of the Habsburg Metropolises. Urbanisation, Municipal Politics, Social Conflicts, 1867-1918], ed. Gerhard Melinz and Susan Zimmermann, 123-139. Wien: Promedia, 1996.

Giustino, Cathleen M. *Tearing down Prague's Jewish Town: Ghetto Clearance and the Legacy of Middle-Class Ethnic Politics around 1900.* Boulder: East European Monographs, 2003.

Griffin, Roger. "Tunnel Visions and Mysterious Trees: Modernist Projects of National and Racial regeneration, 1880-1939." In *Blood and Homeland. Eugenics and Racial Nationalism in Central and Southeast Europe, 1900-1940*, edited by Marius Turda and Paul J. Weindling, 417-456. Budapest: CEU Press, 2007.

Gyáni, Gábor. *Identity and the Urban Experience: Fin-de-Siécle Budapest*. Boulder, CO: East European Monographs, 2004.

Habermas, Jürgen. *The Structural Transformation of the Public Sphere. An Inquiry into a Category of Bourgeois Society.* Cambridge, MA: MIT Press, 1991.

Havránek, Jan. "Politische Repression und Versorgungsengpässe in den böhmischen Ländern 1914 bis 1918 [Political Repression and Food Shortage in Bohemian Lands, 1914-1918]." In *Der Erste Weltkrieg und die Beziehungen zwischen Tschechen, Slowaken und Deutschen* [The First World War and the Relations Between Czechs, Slovaks and Germans], edited by Hans Mommsen, 47-67. Essen: Klartext, 2001.

Healy, Maureen. Vienna and the Fall of the Habsburg Empire: Total War and Everyday Life in World War I. Cambridge: Cambridge University Press, 2004.

Heumos, Peter. "Kartoffeln her oder es gibt eine Revolution.' Hungerkrawalle, Streiks und Massenproteste in den böhmischen Ländern 1914-1918 [Give us Potatoes or there will be a Revolution!: Food Riots, Strikes and Mass Protests in the Bohemian Lands, 1914-1918]." *Slezský sborník = Acta Silesiaca: čtvrtletník pro vědy o společnosti Opava* 97 (No. 2, 1999): 81-104.

Hlavačka, Milan, and Bolom, Sixtus and Šimon, Patrik. *V zákopech mysli: život, víra a umění na prahu velké války* [In the Trenches of the Mind: Life, Faith and Art at the Beginning of the Great War]. Prague: Historický ústav, 2014.

Hlavačka, Milan. "Zlatý věk české samosprávy: samospráva a její vliv na hospodářský, sociální a intelektuální rozvoj Čech 1862-1913 [The Golden Age of Czech Self-Government.

Self-Government and its Influence on Economic, Social and Intellectual Development in Bohemia, 1862-1913]." Prague: Libri, 2006.

Hledíková, Zdeňka, and Janák, Jan, and Dobeš, Jan. *Dějiny správy v českých zemích: od počátků státu po současnost* [The History of Administrative Institutions in the Bohemian Lands: From the Emergence of the State to Contemporary Times]. Prague: NLN, 2011.

Janáč, Jiří. *European Coasts of Bohemia. Negotiating the Danube-Oder-Elbe Canal in a Troubled Twentieth* Century. Amsterdam: Amsterdam University Press, 2012.

Janko, Jan. Vědy o životě v českých zemích, 1750-1950 [Life Sciences in the Bohemian Lands, 1750-1950]. Prague: Archiv AV ČR, 1997.

Kamminga, Harmke and Cunningham, Andrew, eds. *The Science and Culture of Nutrition,* 1840-1940. Amsterdam-Atlanta, GA: Rodopi, 1995.

Kamminga, Harmke and Cunningham, Andrew. Introduction to *The Science and Culture of Nutrition, 1840-1940*, edited by Harmke Kamminga and Andrew Cunningham, 1-14. Amsterdam-Atlanta, GA: Rodopi, 1995.

Kamminga, Harmke. "Nutrition for the People, or the Fate of Jacob Moleschott's Contest for a Humanist Science," In *The Science and Culture of Nutrition, 1840-1940*, edited by Harmke Kamminga and Andrew Cunningham, 15-47. Amsterdam-Atlanta, GA: Rodopi, 1995.

Kettner, Josef, ed. *Prof. MUDr. Karel Herfort in memoriam: soubor článků a vzpomínek* [The Late Professor Karel Herfort: A Collection of Essays and Memoirs]. (Prague: Spolek pro péči o slabomyslné, 1940).

Kevles, Daniel J. "Genetics in the United States and Great Britain, 1890-1930: A Review with Speculations." *Isis* 71 (Sep., 1980): 441-55.

Klabouch, Jiří. *Die Gemeindeselbstverwaltung in Österreich 1848-1918* [The Local Self-Administration in Austria, 1848-1918]. Wien: Verlag für Geschichte und Politik, 1968.

Kocka, Jürgen. "Bürgertum und Sonderweg [Middle Classes and the Sonderweg Theory]." In Sozial- und Kulturgeschichte des Bürgertums: Eine Bilanz des Bielefelder Sonderforschungsbereichs, 1986-1997 [Social and Cultural History of the Middle Classes: Taking Stock of the Bielefeld's Special Focus Area], edited by Peter Lundgren, 85-92. Göttingen: V&R, 2000.

Kohlrausch, Martin, and Steffen, Katrin, and Wiederkehr, Stefan, eds. *Expert Cultures in Central Eastern Europe. The Internationalization of Knowledge and the Transformation of Nation States since World War I.* Osnabrück: fibre, 2010.

Kopecký, Lukáš. "Zapomenutý sušický rodák Karel Viškovský (1868-1932) [A Forgotten Son of Sušice: Karel Viškovský, 1868-1932]." Vlastivědný sborník Muzea Šumavy 9 (2016): 313-354.

Kopeček, Michal. "From Scientific Social Management to Neoliberal Governmentality? Czechoslovak Sociology and Social Research on the Way from Authoritarianism to Liberal Democracy." *Stan Rzeczy*, forthcoming.

Koselleck, Reinhart. *Futures Past. On the Semantics of Historical Time*. New York: Columbia University Press, 2004.

Krätz, Otto. ""... ja die Erbsen, meine Herren ...": Friedrich Johann Woyzeck, Georg Büchner, Justus Liebig und Alban Berg. [Oh, peas, gentlemen...: Friedrich Johann Woyzeck, Georg Büchner, Justus Liebig and Alban Berg]" *Kultur & Technik* 33 (No. 4, 2009): 34-39.

Kubačák, Antonín. "Vývoj primárního sektoru: vývoj zemědělství [The Development of the Primary Sector: The Development of Agriculture]." In *Hospodářský vzestup českých zemí od poloviny 18. století do konce monarchie* [The Economic Rise of the Bohemian Lands since the mid-18th Century until the End of the Empire], ed. Zdeněk Jindra et al., 145-198. Prague: Karolinum, 2015.

Kučera, Rudolf. Rationed Life. Science, Everyday Life, and Working-Class Politics in the Bohemian Lands, 1914-1918. New York – Oxford: Berghahn, 2016.

Láník, Jaroslav, and Vlk, Jan et al., *Dějiny Prahy. Sv. 2. Od sloučení pražských měst v roce 1784 do současnosti* [The History of Prague. From the Unification in 1784 to the Present]. Prague: Paseka, 1998.

Lašťovková, Barbora. "Zásobování Prahy za první světové války [Provisioning of Prague during the First World War]." In *Mezi liberalismem a totalitou. Komunální politika ve středoevropských zemích 1848-1918* [Between Liberalism and Totalitarianism. Urban Politics in Central European Countries, 1848-1918], edited by Jiří Pešek and Václav Ledvinka, 111-117. Prague: Scriptorium, 1997.

Ledvinka, Václav, and Pešek, Jiří. Praha [Prague]. Prague: NLN, 2000.

Lenderová, Milena, and Halířová, Martina, and Jiránek, Tomáš. *Vše pro dítě! Válečné dětství 1914-1918* [Everything in Children's Interest! Wartime Childhood, 1914-1918]. Prague and Litomyšl: Paseka, 2016.

McEwen, Britta. *Sexual Knowledge: Feeling, Fact and Social Reform in Vienna, 1900-1934.* New York–Oxford: Berghahn, 2012.

Melinz, Gerhard, and Zimmermann, Susan. "Die aktive Stadt. Kommunale Politik zur Gestaltung städtischer Lebensbedingungen in Budapest, Prag und Wien, 1867-1914. [The Active City. Municipal Policies Aiming at the Shaping of the Urban Living Conditions in Budapest, Prague and Vienna]" In *Wien – Prag – Budapest: Blütezeit der Habsburgermetropolen. Urbanisierung, Kommunalpolitik, gesellschaftliche Konflikte, 1867-1918*, edited by Gerhard Melinz and Susan Zimmermann, 140-176. Vienna: Promedia, 1996.

Moore, James. "The Fortunes of Eugenics." In *Medicine Transformed: Health, Disease and Society in Europe 1800-1930*, ed. Deborah Brunton, 239-265. Manchester: Manchester University Press, 2004.

Němec, Bohumil. Artur Brožek. Prague: Česká akademie věd a umění, 1935.

Neumann Iver B., and Sending, Ole Jacob. *Governing the Global Polity: Practice, Mentality, Rationality.* Ann Arbor: University of Michigan Press, 2010.

Orel, Vítězslav, and Matalová, Anna. "Kříženeckého chápání Mendelova objevu pod vlivem teorie dědičnosti získaných vlastností [Kříženecký's Understanding of Mendel's Discovery

Under the Influence of the Theory of Inheritance of Acquired Characteristics]." *Dějiny vědy a techniky* 23 (1989): 79-91.

Pešek, Jiří. *Od aglomerace k velkoměstu: Praha a středoevropské metropole 1850-1920* [From Agglomeration toward a Metropolis. Prague and the Central European Capitals, 1850-1920]. Prague: Scriptorium, 1999.

Pick, Daniel. *Faces of Degeneration: A European Disorder, c.1848-c.1918.* Cambridge: Cambridge University Press, 1993.

Picon, Antoine. "Urban Cartography and the Scientific Ideal: The Case of Paris." *Osiris* 18 (2003): 135-149.

Pocock, John. "The History of Political Thought: A Methodological Inquiry." In *Political Thought and History: Essays on Theory and Method*, 3-19. Cambridge: Cambridge University Press, 2009.

Pocock, John. "The Concept of a Language and the Métier d'historien: Some Considerations on Practice." In *The Languages of Political Theory in Early-Modern Europe*, edited by Anthony Pagden, 19-38. Cambridge: Cambridge University Press, 1987.

Pojar, Vojtěch. "*Nedostatek potravin za první světové války a legitimita komunálních elity v Praze* [Food Shortage and the Legitimacy of Urban Political Elites in Prague]." *Hospodářské dějiny/Economic history* 28, (No. 2, 2013): 177-225.

Rabinbach, Anson. *The Human Motor: Energy, Fatigue and the Origins of Modernity*. Berkeley and Los Angeles: Basic Books, 1990.

Reeve, Andrew. "Representation, political," In Routledge Encyclopedia of Philosophy. London: Routledge, 1998.

Rokoský, Jaroslav. "Agrární strana." In *Politické strany: Vývoj politických stran a hnutí v českých zemích a Československu, 1861-1938* [Political Parties: The Development of Political Parties and Movements in the Bohemian Lands and Czechoslovakia, 1861-1938], ed. Jiří Malíř and Pavel Marek (Brno: Doplněk, 2005), 413-442.

Sapiro, Gisèle. "Modèles d'intervention politique des intellectuels. Le cas français, [Models of Political Intervention of Intellectuals. The French Case]." *Actes de la recherche en sciences sociales* (no. 176–77; 2009): 8–31.

Scheufler, Pavel. "Zásobování potravinami v Praze v letech 1. světové války [Provisioning of Prague with Food during the First World War]." *Etnografie dělnictva* 9 (1977): 143-197.

Šedivý, Ivan, *Češi, české země a velká válka 1914–1918* [Czechs, Czech Lands, and the Great War, 1914-1918]. Prague: NLN, 2001.

Shapin, Steven. "Cordelia's Love: Credibility and the Social Studies of Science." *Perspectives on Science* 3 (No. 3, 1995): 255-275.

Šimůnek, Michal V. "Česká eugenika a Velká válka [Czech Eugenics and the Great War]." In *Semináře Výzkumného centra pro dějiny vědy z let 2000-2001*, edited by Antonín Kostlán, 53-71. Praha: Výzkumné centrum pro dějiny vědy-Arenga, 2002.

Šimůnek, Michal V. "Czechoslovakia." In *East Central European Eugenics 1900-1945*. *Sources and Commentaries*, edited by Marius Turda, 128-145. London: Bloomsbury, 2015.

Šimůnek, Michal V. "Eugenics, Social Genetics and Racial Hygiene: Plans for the Scientific Regulation of Human Heredity in the Czech Lands, 1900-1925." In *Blood and Homeland: Eugenics and Racial Nationalism in Central and Southeast Europe, 1900-1940*, edited by Marius Turda and Paul J. Weindling, 145-166. New York: Central European University Press, 2006.

Šimůnek, Michal V. "Soziopolitische Bestrebungen der Tschechischen Eugenischen Gesellschaft in den Jahren 1915–1924. [Sociopolitical Attempts of Czech Eugenic Society, 1915-1924]" In Moderne Biologie. Möglichkeiten und Risiken, Hoffnung und Bedrohung [Modern Biology: Potentialities and Risks, Hope and Danger], edited by Michal Anděl et al., 55–64. Prague: 3. LF UK, 2003.

Šimůnek, Michal, and Hossfeld, Uwe. "Selected Bibliography on Heredity, Medicine, and Eugenics in Bohemia and Moravia, 1900-1950." *Folia Mendeliana* 49 (No. 2; 2013): 5-31.

Skinner, Quentin. "Meaning and Understanding in the History of Ideas." *History and Theory* 8 (No. 1; 1969): 3-53.

Smith, Robyn. "The emergence of vitamins as bio-political objects during World War I." *Studies in History and Philosophy of Science. Part C: Studies in History and Philosophy of Biological and Biomedical Sciences* 40 (Sept., 2009): 179-189.

Štaif, Jiří. "Peníze a společnost. Několik sond do vztahů mezi tradiční mentalitou a společenskou modernizací v české národní společnosti 19. století [Finance and Society. Some Thoughts on the Relationship between Traditional Mentality and Social Modernization in Czech Society in the 19th Century]." In *Finanční elity v českých zemích a Československu* [Financial Elites in Bohemian Lands and Czechoslovakia], edited by Eduard Kubů and Jiří Šouša, 18-55. Prague: Dokořán, 2008.

Šťastná, Jarmila, and Robek, Antonín, and Moravcová, Mirjam, eds. *Stará dělnická Praha: život a kultura pražských dělníků 1848-1939* [The Working-Class Prague of Old. Life and Culture of Workers in Prague, 1848-1939]. Prague: Academia, 1981.

Štěpek, Jiří. *Sto let přídělových systémů na území bývalého Československa 1915-2015* [A Century of Rationing in the Territory of Former Czechoslovakia, 1915-2015]. Prague: Národohospodářský ústav Josefa Hlávky, 2014-2015.

Strobach, Vít. "*Třída, národ a degenerovaná rasa podle českých socialistů (1890-1914)* [Class, Nation and Degenerate Race According to Czech Socialists, 1890-1914]." *Politologická revue* 18 (No. 2; 2012): 99-119.

Strobach, Vít. Židé: národ, rasa, třída. Sociální hnutí a "židovská otázka" v českých zemích 1861-1921 [Jews: Nation, Race, Class. Social Movements and the "Jewish Question" in the Bohemian Lands, 1861-1921]. Prague: NLN, 2015.

Šubrtová, Alena. *Dějiny populačního myšlení v českých zemích* [A History of Population Thought in the Czech Lands]. Prague: Česká demografická společnost, 2006.

Szacki, Jerzy. *Historia myśli socjologicznej* [The History of Sociological Thought]. Warsaw: PWN, 2002.

Tanner, Jakob. *Fabrikmahlzeit: Ernährungswissenschaft, Industriearbeit und Volksernährung in der Schweiz 1890-1950* [A Factory Snack. Nutrition Science, Industrial Labour and Popular Nutrition in Switzerland, 1890-1950]. Zürich: Chronos, 1999.

Teich, Mikuláš. "Science and Food during the Great War: Britain and Germany," In *The Science and Culture of Nutrition, 1840-1940*, edited by Harmke Kamminga and Andrew Cunningham, 213-234. Amsterdam-Atlanta, GA: Rodopi, 1995.

Topham, Jonathan. "Introduction: Historicizing Popular Science." Isis 100 (2009): 310-18.

Turda, Marius. Modernism and Eugenics. Basingstoke: Palgrave Macmillan, 2010.

Van Meer, Elisabeth. "The Nation is Technological:' Technical Expertise and National Competition in the Bohemian Lands, 1800-1914." In *Expert Cultures in Central Eastern Europe: The Internationalization of Knowledge and the Transformation of Nation States since World War I*, edited by Martin Kohlraush, Stefan Wiederkehr, and Katrin Steffen, 85-104. Osnabrück: Fibre Verlag, 2010.

Van Meer, Elisabeth. "The Transatlantic Pursuit of a World Engineering Federation: For the Profession, the Nation, and International Peace." *Technology and Culture* 53 (no. 1; January, 2012): 120-145.

Vencovský, František. *Dějiny českého ekonomického myšlení do roku 1948* [A History of Czech Economic Thought before 1948]. Brno: Masarykova univerzita, 1997.

Vosyka, Stanislav. "K životu a dílu litomyšlského purkmistra MUDr. Františka Laška (1872-1947) [Life and Works of František Lašek, M.D., Mayor of Litomyšl. (1872-1947)]." In *Pomezí Čech a Moravy: sborník prací ze společenských a přírodních věd pro okres Svitavy*, edited by Milan Skřivánek, 69-98. Litomyšl: Státní okresní archiv Svitavy se sídlem v Litomyšli, 1997.

Weber, Max. *Gesammelte Aufsätze zur Wissenschaftslehre* [Collected Essays on the Sociology of Science], ed. Johannes Winckelmann. Tübingen: Mohr, 1985.

Weber, Max. "Science as a Vocation." In *Max Weber: Essays in Sociology*, edited by Hans Gerth and C. Wright Mills, 129–156. New York: Oxford University Press, 1946.

Winter, Jay M. "Socialism, Social Democracy, and Population Questions in Western Europe: 1870-1950." *Population and Development Review* 14, Supplement: Population and Resources in Western Intellectual Traditions (1988): 122-146.

Zahra, Tara. *Kidnapped Souls. National Indifference and the Battle for Children in the Bohemian Lands*, 1900–1948. Ithaca, NY: Cornell University Press, 2008.

Zimmermann, Andrew. *Anthropology and Antihumanism in Imperial Germany*. Chicago-London: The University of Chicago Press: 2001.