

HABILITATION THESIS REVIEWER'S REPORT

Masaryk University

Applicant

Mgr. Eva Šlesingerová, Ph.D.

Habilitation thesis

We, Other Utopians Recombinant DNA, Genome Editing, and Artificial Life

Reviewer

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We, Other Utopians consists of seven chapters with a focus on modern biotechnology such as recombinant DNA, genome editing and artificial life. This book is a result of the Marie-Curie Skłodowska Fellowship project named ARTENGINE, which is an acronym for *Artificial Life/Antropological and Sociological Analysis of Life Engineering*. The research project has been carried out in Thomas Lemkes research group at Goethe University. The fieldwork has been done in a biochemical lab at a university research centre in Czech Republic in the years 2017 to 2019. In this way, Šlesingerová positions here research project in a central European context where biotechnologies are rapidly changing our social and cultural understanding of life, body and technologies. As she is citing one of the biomedical researchers that is part of the fieldwork, this change is not something that will happen in the near future, it is happening now. Therefore, it should be underlined that this book highlights a very central development within biomedicine that is central to study with a critical sociological perspective.

In the introduction Šlesingerová presents the background of her study and places it in the context of modern biotechnology. Central to this perspective is how the social scientist should approach this field. There are several studies in the field, but the importance of this introduction is a presentation of how some classic works in sociology and anthropology can be used. In the introduction we are for example introduced to Turner, Foucault, Douglas and Jameson, to mention a few. This is refreshing because we often encounter STS (science and technology studies) classics in this type of study. Here, instead, Šlesingerová gives us an opportunity to rethink the biomedical field, and at the same time develop some classic theories in the social sciences.

In chapter two – “The lab” – Šlesingerová introduces her methods and fieldwork in a more detailed way. She presents the studies that have been carried out in the field of ethnographic encounters in the lab. It is a provoking text about how social science needs to rethink the ethnographic methods of the lab. Especially interesting is the discussion how the social scientist creates a relationship to the biomedical lab and what it means for the role of being an ethnographic researcher in this specific environment. Šlesingerová demonstrates great awareness and reflexivity regarding the choice and use of methods in the social sciences.

Chapter three to six present some novel ideas how to study the field of recombinant DNA, genome editing and artificial life as a sociologist. Each chapter presents and develops a multifaceted theme, which is well related to the empirical research. It starts with the poetics and politics of genome editing technologies, deepens our understanding of futurity of embodiment, look closer on the role of dreams and visions in these technologies, and ends

with a discussion about apolitical biopolitics. Each chapter is very theoretically driven, and varying perspectives are presented. This makes the book multi-layered in a very good way, although I would like to see some perspectives summarized more comprehensively.

I will now highlight some central themes where Šlesingerová gives a major and novel contribution to the sociological research of modern biotechnology. In chapter 3 – “Genome Editing and Recombinant DNA Today” – Šlesingerová gives an introduction to biotechnology of today. She introduces the post-genomic biotechnology medicine and the focus on enhancement. But she also links this discussion to the more theoretical concept of “dispositif de sécurité”, and how the technologies of genome editing need to be understood in relation to security. This biological complexity can be seen as a conflict between on one hand remedy and relief, on the other hand “designer babies” and “eugenics” for example. With a sharp analytical eye Šlesingerová makes clear how “dispositif de sécurité” can be used to understand these longstanding moral concerns.

In chapter 6 – “We, Other Utopians” – there is a central discussion which is related in various ways to the perspective above. The discussion focuses on future and how future becomes a central topic to understand modern biotechnology. The concept of future is used as a method to critically understand how technology creates and changes society. Many very thought-provoking concepts are presented and two that deepen the understanding more than the others are “life-as-it-could-be” and “life-as-it-could-be-recombined”. How do we understand life today, and how can modern biotechnology change this in the near future? Šlesingerová also relates this discussion to, what she calls, post-communistic memories. Here it is made clear in which ways the global biotechnology of today always operates in a moral national context as well. This is a very important contribution to social science perspectives on biotechnology because, so much other literature focuses primarily on an English context.

As a final theme I want to highlight the concept of “laboratory embodiments” that Šlesingerová presents in chapter 4 – “Biotechnological Corporeality”, this one stands out a little more than the others. The concept describes human bodies and technology as intertwined and is in this way more phenomenological. But it is a concept that also is used and developed with the help of ethnographic methods. In this way, it is both theoretically and methodologically very useful. In the chapter Šlesingerová relates this concept to very inspiring discussions about computing and invisible bio-objects.

With these three examples, I want to manifest the qualities *We, Other Utopians* have. There are, of course, other concepts, perspective empirical discussions and so on that could be mentioned here, but these three provide good examples of the innovative thinking found in the book. Šlesingerová has written a book with significant scientific achievement to the field of sociological perspectives on modern biotechnology, such as recombinant DNA, genome editing and artificial life. But it is also a book that have great importance for research within the field of science and technology studies. This book has high scientific qualifications.

Reviewer's questions for the habilitation thesis defence (number of questions up to the reviewer)

- 1) What critical role has the ethnographic researcher to (1) the biomedical field, and (2) to the researchers in the biomedical lab where the field work is done?
- 2) What driving forces are there behind the relation between “dispositif de sécurité” and the threat that we risk creating new eugenics?
- 3) In what ways shapes “post-communistic memories” the lab researchers relation to “dispositif de sécurité”? Is there anything that distinguishes the researchers compared to other countries?

Conclusion

The habilitation thesis entitled *We, Other Utopians Recombinant DNA, Genome Editing, and Artificial Life* by Mgr. Eva Šlesingerová, Ph.D. **fulfils** requirements expected of a habilitation thesis in the field of Sociology.

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Signature



