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# An Expedition Between Innovation Politics and Anthropology

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TORBJÖRN FRIBERG

# AN EXPEDITION BETWEEN INNOVATION POLITICS AND ANTHROPOLOGY

Malmö University Press, 2022

*For Åsa, Oliver, Elliot, Georg, Ingeborg, and Jörgen*

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# PREFACE

An anthropological study of innovation politics easily becomes an ambiguous research project. The ambiguousness is constituted by the continuously perceptual shifts between innovation politics as a phenomenon and/or context. During the fieldwork (ethnography), one views innovation politics as a phenomenon; while doing deskwork (analysis), one observes the same expression as a context to the anthropological discipline. As the participant-observer makes expeditions between the innovation political world and the anthropological world, he or she can perceive either the emerging political phenomenon or the current political context. When innovation politics appears to be a phenomenon, it has a specific form that reminds of a non-political project. However, when innovation politics appears as a context, it has a definite form that resembles an imperialistic political development. Therefore, I argue that innovation politics may be viewed as a non-political-politics, which makes sense if thinking in terms of the Gestalt psychological figure-ground-perception or the reversibility thesis. This book concerns an expedition between the innovation political world and the anthropological world: an experimental excursion that attempts to discuss a number of various specific phenomena, which later are drawn together in order to discuss the general notion of ideology, power, and possible anthropological escape routes in the context of innovation politics.

Firstly, I would like to thank Karen-Lisa Salamon and Sine Larsen for being inspiring researchers and for hiring me at Copenhagen University in the CoNeXT excellence project (more about this later). Without Salamon and Larsen, this book would not exist. Not to be forgotten, thanks to the Danish anthropological colleagues. Furthermore, as the present book draws inspiration from phenomenology, I would like to thank Magnus Englander for introducing me to the phenomenological tradition. As there are no clear distinctions between classical ethnography and phenomenology approaches, I initially had some difficulties grasping the meaning of the latter tradition. However, when Englander encouraged me to read Alfred Schutz, the relationship between ethnography and phenomenology made sense. I would, moreover, acknowledge

Daniel Ankarloo, Carlo Pinnetti, and Renita Thedvall for interesting discussions concerning politics, epistemology, and writing processes. My “old” colleagues Oscar Andersson, Aje Carlbom, and Hilma Holm have read and commented on some of the chapters’ drafts, thereby laying the ground for significant improvement. Thanks! In addition, I would like to take the opportunity to thank the librarians at Malmö University—Jacob Andersson, Jenny Widmark, Maria Brandström, and Helena Stjernberg Tagesson—for guiding me through the jungle of Open Access and other issues concerning academic publications. Finally, thanks to The Language Editing Group at Malmö University, especially Damian Finnegan.

# INTRODUCTION

## Global innovation politics and anthropology

Innovation politics is a global phenomenon that seems to find its way to most regions and nations of the world (Rickne et al. 2014; Breznitz and Etzkowitz 2019). Several leaders and politicians declare the importance of innovation politics because it is imagined to lay the ground for today's social and economic growth and development. For example, in a 2015 Swedish newspaper article (Schwaag Serger 2015), the reader encounters three politicians: the president of the United States of America, Barack Obama; the Swedish prime minister, Stefan Löfven; and the president of China, Xi Jinping. What these leaders have in common, according to the author, is the belief that "innovation" is going to solve future competitiveness, welfare, and societal and economic challenges. The reader is informed that Obama has recently announced that America ought to become out-innovate, more ingenious than the rest of the world, that Löfven has established a Swedish innovation council, and that Jinping has declared innovation to be the key to China's future success. In essence, innovation politics is to be found in political agendas worldwide.

In 2007, the Global Innovation Index (GII), which functions as a reference to those politicians and policymakers concerned with economic policy strategies, was established. Its aim "is to provide insightful data on innovation and, in turn, to assist economies in evaluating their innovation performance and making informed innovation policy considerations" (Global Innovation Index 2020). In the GII's report, the reader encounters a ranking system of the innovation performance of "more than 130 economies around the world":

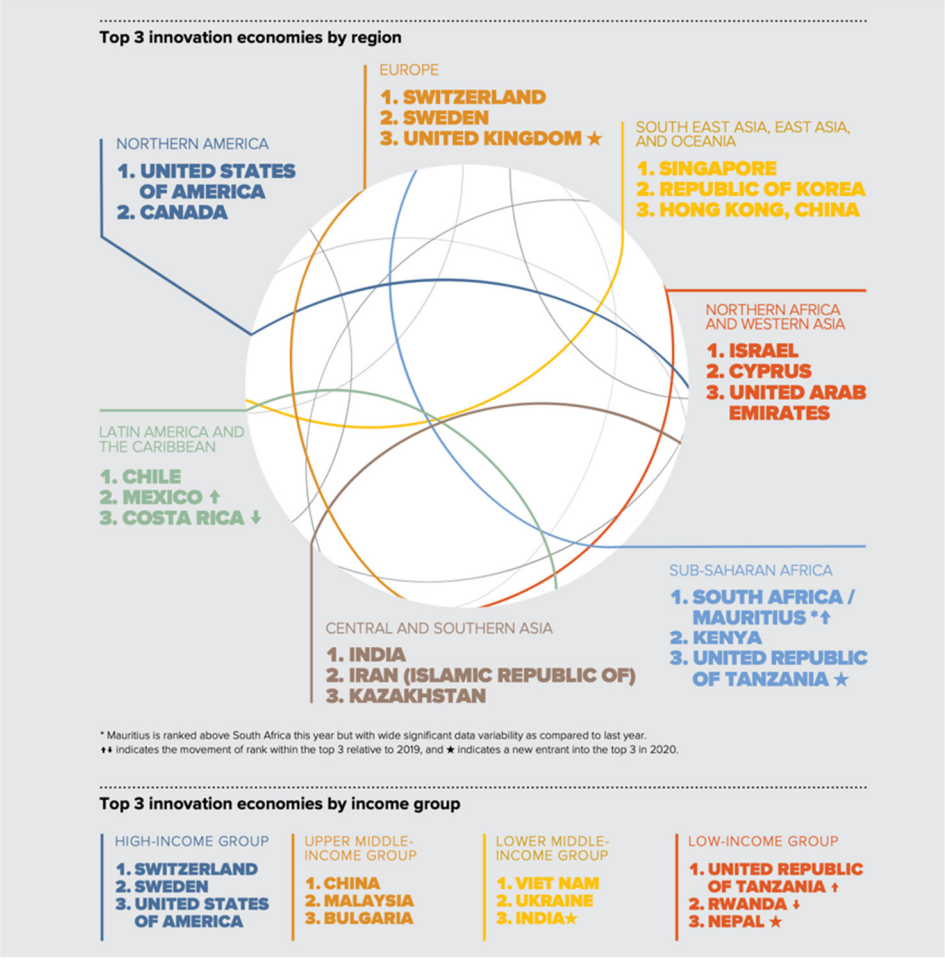


**Figure 1.** The Global Innovation Index, 2020.

As shown in the bottom left corner in Figure 1, Sweden is ranked second in the high-income group, which can be understood against at the backdrop of the national, political history of organized collaboration between the state, university, and business (Hall 2020).

In a speech concerning the 2020 research bill (SNS 2020), Swedish Minister of Research, Matilda Ernkrans (Social Democrat), announced:

> Swedish research and innovation are successful—this is a position we must defend. The total public and private investments are large compared to many other countries. Regarding innovation, Sweden is continuously being ranked in the top position. However, it is easy to fall behind, and therefore investments in research, innovation, and education are needed. Continued collaboration between companies, business, academia, and civil society is required, especially if we would like to continue to be a country that can compete with knowledge and competence. For that reason, we are now making a billion investments in Swedish research and innovation in the coming years. (SNS 2020)

Ernkrans in her speech continues to underline that the main innovation political point is both national and European collaboration projects because they "benefit the whole society," keeping in mind that the political point is linked to other policies (see European Parliament 2020). She takes the current epidemic crisis (Covid-19) and vaccines' rapid development as a successful example of collaborative innovation.

In this book, I will mainly focus on Sweden, with some socio-political connections to Denmark. More specifically, I will pay attention to the Öresund region (the southern part of Sweden with the cities of Malmö, Lund and Helsingborg and the metropolitan area around Copenhagen, Denmark) as a case of global innovation politics.


**Figure 2.** Map of the Öresund region.

To direct the anthropological gaze towards innovation politics in the Öresund region might appear to be unconventional, not least as anthropologists usually study "exotic" political systems beyond the European continent. However, as shown in this book, innovation politics is more than an ordinary Western political phenomenon. Global innovation politics is perceived as a kind of non-political-politics because very few researchers or politicians question its requirement of power or ideological content for the common good in society.

In the Danish anthropological journal *Tidskriftet Antropologi,* one can read a single-topic issue on Innovation (Lex et al. 2017). In the Introduction, the editors argue that innovation has become a naturalized, universal solution for problems concerned with topics such as environmental issues, refugee crises, development of cities, and communication needs. Hence, innovation is to be treated as a cultural phenomenon, which means it is qualified as an anthropological research issue. It follows that the anthropological task is to document and analyze innovation as social praxis. The editors underline that anthropology as a professional praxis can benefit from the idolization of innovation in the contemporary, especially as the labor market asks anthropologists to solve organizational change, consumers needs, and service design. The editors thus promote both academic and applied anthropological praxis in the innovation political context. In this situation, I claim, the editors have depoliticized the phenomenon of innovation to social praxis and thus avoid understanding it as an imperialistic context—a political world that intends to invade other worlds. Even though they argue that they attempt to "think outside the box," it seems that they are still positioned "inside the box." I want to take this as an example of how non-political-politics work in anthropology.

To my knowledge, Marilyn Strathern is the first anthropologist to notify the emergence of innovation politics and its impact on the university world, especially on the anthropological discipline. In the last chapter of *Audit Cultures* (2000), Strathern reflects on the impact of the triadic processes—audit/policy/ethics—on higher education as an exposed institution. She is especially critical of the future production of knowledge. With a focus on ethnography as a specific form of knowledge production, Strathern primarily draws attention to the later change of the meaning of the social relationship between ethnographer and informants. Because this social relationship was previously constituted by "creative power"—exploratory and unpredictable nature—it is now to be seen as "predicted in advanced." It means that ethnography as an organic part of contemporary changing higher educational institutions has become, more or less, collaborative. With this in mind, Strathern closes the chapter with the following:

> After decades of appeal of innovation,' innovation' seems to gain rather than decrease in strength as a policy keyword. It is when mode 2 practices are regarded as innovatory in this political sense, at once reinforcing the ideology of the new through a new kind of expertise (knowledge systems which comment on their own conditions for the production of knowledge) and summoning yet more bureaucratic reflexivity (how to press this expertise into service), that the ethnographer should be most culturally alert. (2000: 297)

Reading the above over twenty years later, and in a European innovation political context, is quite remarkable. Strathern was right about the increasing strength of innovation as a policy keyword and practice. Referring to "mode 2 practices" (see Gibbons et al. 1994) involves that multidisciplinary teams—such as policymakers, academic researchers, and other (non)-commercial collaborators—are working together to solve specific problems in society: an image and exercise not so exotic in current universities.

A few years later, Strathern returns to discuss innovation politics and the new knowledge production condition in *Common Borderland* (2004a). Examining the role that crises have played in the development of social science, Strathern argues:

> Crises in human affairs have a particular impact in social science because of its orientation (amongst others) to response-mode investigation. There are issues of enormous interest here for anyone concerned with policy, and especially research policy. (2004a: 2)

Anthropology as a central part of human society's scientific study is highly responsive to current public concerns, especially if organically embedded in the imagination of uncertainty. The European science-society relationship has, according to Strathern, become a trendsetting initiative among policymakers in the context of "a widespread consensus that we live in an 'age of uncertainty.'" She argues that "Uncertainty is not a passive state: as a precondition for innovation, it is animated by, among other things, society's internalization of science" (2004a: 8). Bluntly put, in increasingly uncertain societal situations (such as the case of the pandemic of Covid-19, mentioned above), the policymakers attempt to create harmonic, tensionless, and knowledge productive relationships between the scientific world and the everyday social lifeworld. In 2006, Strathern wrote:

> Social anthropology is used to terrains shifting under its feet. Things observed from afar suddenly become near, and the knowledge economy is an example. [C]onsider the place of anthropology as a discipline in a world where creativity becomes an adjunct of productivity, interdisciplinary collaboration becomes a paradigm for innovation, and everyone is valued for their expertise. How to lead a critical life emerges as a new kind of problem. (Strathern 2006:191)

To become a critical anthropologist, she claims, is to *argue*, which in its prolongation means that one needs to detach oneself from other worlds when reasoning. In this manner, the essence of argument is detachment. The managerial policy-centered problem at hand is the signs of the time—collaboration and creativity—that resist detachment. Collaboration and creativity in the contemporary are increasingly valued as highly important since they are imagined to create "arenas for spontaneous synergy and to generate innovation out of boundary-crossing, not the least in the name of knowledge" (2006: 192). Strathern makes a distinction between the managerial policy world and the anthropological world because the former seeks to reduce uncertainty by collaboration, while the latter encourages uncertainty with peers. However, as the managerial policy world is in a favorable position in society, anthropology becomes micromanaged and imperialized. Rather than being detached or disinterested, anthropology is required to be engaged in public issues, that is, collaborative with economy and politics. Hence, the anthropological interests become subordinated to the common solutions in society. This is devastating because "the aim of criticism in research is to re-multiply, re-divide, the outcomes of any one particular argument. Criticism bifurcates; it makes a single account multiple again" (2006: 199). In the context of innovation politics, detachment or critique is a sign of failure, especially as it rejects modern detachment while favoring romantic engagement (cf. Candea et al. 2015: 5).

As an anthropologist interested in policy and research politics in uncertain contexts (Friberg 2006, 2015), I embrace Strathern's invitation to be "alert" and "critical," which here interprets as a state of being watchful for potentially powerful and ideological circumstances in innovation politics. However, this book is not exclusively addressed to fellow anthropologists. Similarly, as Sweden will function as an ethnographic case of global innovation politics, anthropology is viewed as a case of social science in general. As we know, the anthropological discipline is a part of the social sciences in the wide-reaching university world.

# An anthropological situation

The paramount social reality consists of a significant variation of sub-worlds. These emerging, existing, or disappearing worlds may be understood as part of human beings' consciousness, which customarily expresses themselves in various symbolic and material manners (Schutz 1962; Godelier 2020). It is in these socio-cultural contexts, over the last hundred years, that we find the anthropological discipline. Anthropologists enter the social reality to study, document, and write about other worlds. To make sense of other worlds, the anthropologists conduct ethnography to get close to the Others' meaning of phenomena, which results in a situation of becoming part of "two different worlds of thought at the same time, in categories and concepts and values which often cannot easily be reconciled" (Evans-Pritchard 1976: 243).

One of the most famous anthropological works is Bronislaw Malinowski's *Argonauts of the Western Pacific* ([1922] 2002), in which the reader learns that the ethnographer's goal is:

> to grasp the native's point of view, his relation to life, to realize his vision of his world. We have to study man, and we must study what concerns him most intimately, that is, the hold which life has on him. In each culture, the values are slightly different; people aspire after different aims, follow different impulses, yearn after a different form of happiness. In each culture, we find different institutions in which man pursues his life-interest, different customs by which he satisfies his aspirations, different codes of law and morality which reward his virtues or punish his defections. To study the institutions, customs, and codes or to study the behaviour and mentality without the subjective desire of feeling by what these people live, of realising the substance of their happiness—is, in my opinion, to miss the greatest reward which we can hope to obtain from the study of man. (2002: 19)

I claim that the anthropological endeavor to grasp the subjective notion of other worlds, with the help of an ethnographic methodology (*Verstehen*), is still considered as constituting the discipline. No matter the location of the world under investigation, ethnography is the trademark of anthropology. Thus the study of *Anthropos* takes a departure from the Others' subjective structure of meaning (fieldwork: first-order constructs), which is fused with the anthropologist's objective conceptual meaning (deskwork: second-order constructs) (see Schutz 1962; Hastrup 1995; Gadamer 1997; Agar 2013). In this sense, ethnography is considered more than a qualitative method: it is a productive way of thinking differently (Merleau-Ponty 1964: 120).

I ethnographically studied the innovation political world, expressed as a network, in the Öresund region. My study involves several sites and various data over a period of one year (2014–2015). Moreover, I have been participating in the two-year excellence project CoNeXT at the University of Copenhagen, Denmark, which is an interfaculty collaborative project involving more than 30 senior researchers from five faculties (Humanities, Natural Science, Health, Law, and Social Science) addressing a wide range of research questions using a variety of methods. Across their disciplinary differences, CoNeXT scientists were researching the potentials of some of the most significant science and technology infrastructure projects built today, that is, MAX IV, a new X-ray synchrotron light facility, and European Spallation Source (ESS), a world-leading neutron facility in Lund, Sweden.

Briefly, the ESS is to become a multidisciplinary research center based on the world's most powerful neutron source. It is still under construction, and the user program is planned to begin in 2023.

**Figure 3.** European Spallation Source (ESS) construction site in Lund, 2020.

Concerning the MAX IV laboratory, it supports three areas of research: accelerator physics, research based on the use of synchrotron radiation, and nuclear physics using energetic electrons. Construction started in 2010, with the opening ceremony scheduled for 2016.

**Figure 4.** An aerial view of MAX IV in 2016.

The social-scientific team consisted of three anthropologists following policymakers, other scientists, and industrial partners involved in organizing the two research facilities. Hence, most ethnographic situations in this book revolve around or refer to the two research facilities: MAX IV and ESS. Concerning the fieldwork, the reader will encounter more detailed discussions in the book's chapters.

In a phenomenological sense, to be trained into the anthropological world means that we are trained by specific anthropologists who teach traditional guiding elements of experience (see Throop 2018). Moreover, each anthropologist continues training what they encounter during fieldwork(s) in relation to specific research interests, purpose, and problematization. Hence, in the most general sense, it is possible to argue that anthropologists are constituted by historical and contemporary elements when experiencing and interpreting a specific world and the related phenomena. I suggest that this is an anthropological situation. The traditional elements I brought with me to this research project is that the discipline was born in the political context of imperialism, in which the anthropologists were in service of the power (Stocking 1994): a historical fact that triggers a self-reflective point of view to find possible escape routes (cf. Bourdieu 2004). Overall, my current ethnographical research interest (as it primarily emerged from fieldwork experiences) is about structural power and

ideology as phenomena taken for granted by people in the everyday lifeworld. In other words, it concerns a non-political-politics.

In this book, I attempt to negotiate my experience of the anthropological situation and thus assume that the innovation political world ought to be considered as constituted by a new form of structural power and ideology—a political context in which the anthropological world, once again, becomes encapsulated by political processes. What kind of ideology are we dealing with, and how do we understand its constitution? Moreover, how do we grasp the structural power in this political context, and how do we perform possible anthropological escape routes? These are wide-ranging questions that I discuss in the concluding remarks by connecting the book's seven chapters. The chapters assembled here have been partly reworked from published and unpublished articles and papers.

# A dynamic context

The analytical strategy in anthropology is to place the socio-cultural phenomena in context to understand their meaning better (Dilley 1999). Here, I propose that it is possible to appreciate context as a taken-for-granted (back)ground from which a specific phenomenon can appear as an influential figure (see Rubin 2001).

In brief, the main context we are dealing with in this book is dynamic modernity in crisis (see Friedman 1994, 1996, 2019; see also Rata 2013). Based on a world-system perspective, we have seen an increasing number of political claims (such as self-government and legal rights of different kinds) from native groups in the periphery over the last thirty years. These political claims could be grasped as modernity, with modernism as the trendsetting ideology, has lost its hegemony in the center of the world-system. Consequently, there are now possibilities for those previously suppressed political ideologies—traditionalism, primitivism, and post-modernism—to grow strong in the new dynamic center. Moreover, it should be noted that the modern image of a certain future has lost its primary position. In this dynamic context, with multiple appearing ideologies, politicians, and policymakers (Nowotny 2016), as well as anthropologists (Samimian-Darash and Rabinow 2015), argue for an uncertain future that needs to become certain by various means. In this dynamic context, sociologist Richard Florida (2004a, 2004b) has underlined that many contemporary modern states promote a creative ethos (as a fundamental character of the culture) that denies modern authoritarian power and centralized control. Florida's point is that creativity is fundamental for how we live today in everyday life. Thus politicians and policymakers promote collaboration and creativity as essential for social and economic development in the future.

In this book, the background we are dealing with is that of a dynamic context in which there are great possibilities for several ideologies to flourish, represented by an image of an uncertain future and signified by a cultural ethos of creativity. At the backdrop of modernity in crisis, I argue, the innovation political world appears as a significant figure, particularly as it suggests creative solutions for the future greater good in the welfare society. The generation of "innovations" is based upon the notion of creativity (anti-authoritarian modern power and denial of centralized control).

# Two ideal worlds

A Schutzian (see Schutz 1962) analytical horizon relies on the fact that it is possible to capture the multiple sub-worlds in everyday life. However, to make sense of other worlds involves that human beings need to discard their taken-for-granted structure of relevance and embrace a different structure of relevance that belongs to the specific world one is interested in understanding. Therefore, to "leap" between different forms of understanding and worlds demands that human beings are open-minded towards various objects and subjects' meaning and relevance. With this in mind, I will here outline the ideal constitution of two worlds—the innovation political world and the anthropological world—in order to elucidate the main differences and similarities; this is especially necessary as the disposition of the book is divide into two ideal worlds.

## The innovation political world

The ideal intersubjective innovation political world takes a departure from a political attitude that seldom is questioned by those people who find themselves within its mental borders (see Friberg and Englander 2019). Rather than theoretical curiosity, the political attitude relates to practical-political interests in moving and manipulating various objects and subjects that offer possibilities and resistance. In this political situation, the modern institutional and everyday professional life is transformed into a scene of struggle (cf. Simmel 1970), governed and transformed to suit the innovation political interests. The innovation political people persistently attempt to grasp the university and its affiliated researchers, the industry and its linked entrepreneurs, and state agency and its connected policymakers to modify their relationship (Taylor 2016). Hence, the political attitude is ruled by pragmatic motives. What the innovation political people have in mind is to modify the modern, straight boundaries between modern institutions and professions: transforming autonomous differences into a harmonic, collaborative, and intertwined unity. To create an institutional-professional unit, the innovation political people argue that this entity will function as a new economic and social apparatus for securing a future

economic and social development in the welfare society (Etzkowitz 2004, 2005; Etzkowitz and Zhou 2017; Breznitz and Etzkowitz 2019). This form of unity will generate "added value" in terms of innovations. This argument's logic derives from the notion that innovations can be sold on various markets or utilized for the citizens' economic (Archibugi 2001) or social (Mulgan 2019) benefits.

As a means of assistance, the innovation political people ordinarily utilize a theoretical policy model called Triple Helix (see cf. Viale and Etzkowitz 2010; Abu-Tair et al. 2020). The Triple Helix model becomes meaningful in the innovation political world because it functions as a policy tool to create harmonic collaborative projects between modern institutions and professions. Rather than straight modern boundaries between institutional and professional, the Triple Helix attempts to hybridize or intertwine all objects and subjects. As it is operated by the innovation political people, the policy model aims to create a regional growth engine to generate innovations (see Figure 5.).

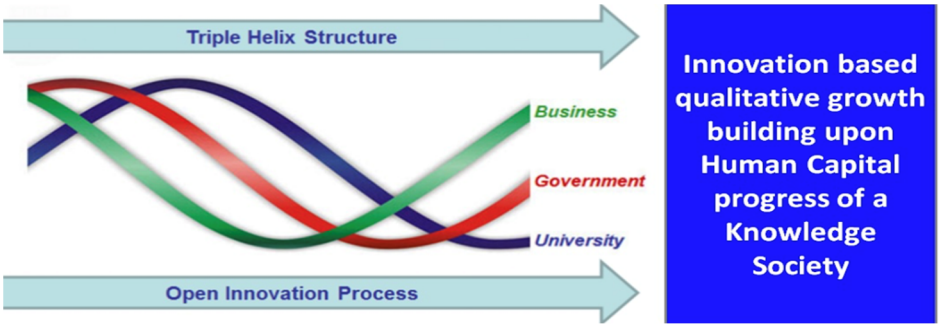


**Figure 5.** The ideal function of the Triple Helix model.

The fundamental structure of relevance in the innovation political world seems to rest on the "anxiety before the uncertain future" to reproduce social and economic welfare. Thereby, the innovation political people attempt to master and govern institutional objects and professional subjects by starting up innovation political project of all kinds. The policy-linked people have strong support from European and national agencies that follow the research policy of innovation (cf. Waluszewski et al. 2017; Eklinder-Frick et al. 2018). Those interested in establishing new projects can, for example, apply for several millions (Euro) from the European Commission or Sweden's innovation agency (VINNOVA). These funds often come forth from the notion of "innovation-driven Public-Private Partnerships," a hybrid or intertwined relationship imagined solving several societal challenges related to climate, environment, health, and democracy (Hall 2020). In this collaborative situation, regional policymakers usually gather researchers from public universities and entrepreneurs from private firms to solve

a specific "challenge." The solution is called innovation and might be patented or used to solve other social and economic purposes.

## The anthropological world

The ideal intersubjective anthropological world is constituted by a theoretical attitude, which means that the anthropologists bracket the practical attitude, that is, the taken-for-grantedness of the world that they are studying (cf. Pedersen 2020). Elucidating what is taken-for-granted helps the anthropologist to see how phenomena are (re)constituted. In our specific circumstances, it is possible to argue that I assume a theoretical attitude (that avoids serving pragmatic purposes) to study the practical attitude. The main goal is to observe and understand the innovation political world, rather than control or master it.

Such a theoretical approach is well known in the anthropological world. We can think of Edward E. Evans-Pritchard's ([1937] 1976: 221) classical inquiry of the witchcraft attitude among the Zande, primarily as his theoretical interest was that of human beings' metaphysical assumptions or beliefs. Evans-Pritchard implies that the theoretical attitude strives to unite bits of the local, practical world with an abstraction that answers the overall research question concerned with the human condition. Anthropologist Clifford Geertz (2000: 57–58) has made a similar point when underlying the analytical fact that there is a distinction between being a witch and studying witchcraft, as two different attitudes of understanding the world. This book is no different from Evans-Pritchard's monograph or Geertz's argument since I, too, have set my mind on a theoretical attitude: ideology, structural power, and possible escape routes.

A theoretical attitude could very well be utilized with practical, political interests, but that is not my primary intention. In this situation, I propose a distinction between a social scientific and a political purpose (Weber 1977). Briefly, a social scientific purpose is about solving scientific problems, that is, unraveling how *Anthropos* live their lives in various worlds constituted by specific structures of relevance. Such an approach takes a departure from fieldwork in the pragmatic world constituted by practical interests, but it ends up with deskwork in the anthropological world, founded on the theoretical attitude (cf. Ingold 2017). Consequently, when the anthropologist brackets what is taken-for-granted in the innovation political world, he or she becomes disentangled from the specific thought of the "anxiety before the uncertain future." Here, the anthropologist avoids looking for solutions that fit his or her personal or social problem as they exist in the innovation political world. However, it should be noted that the anthropological world is not to be seen as an entire autonomous province of meaning, existing without any interaction with the contemporary economic-political context. Today, several anthropologists (in an orchestra with the anxiety in the innovation political world) are concerned with the future, but

are mostly worried about the discipline's survival in a transforming economic-political context. Thus anthropologists suggest that we ought to do political resistance (Wright and Shore 2017), or merely take the opportunity to create a new strong brand (Hannerz 2011). My point here is that these anthropological strategies—resistance and branding—seem to be constituted by a primary practical interest because one should master and govern the political-economic context. I do not have a problem with such pragmatic motives per se (applied anthropology of anthropology?). However, in this book, I strive towards the notion of ending up with a theoretical attitude. The overall anthropological research line follows the ideal of being disinterested (see Schutz 1962; Bourdieu 2004; see also Bourdieu and Wacquant 1992: 253-260) in transforming or controlling the innovation political world—detached.

Both worlds have an interest in theoretical models. However, there are a couple of differences between the political and scientific interest in models: time and purpose. In contrast to the policymakers' initial use of models in the innovation political world, anthropologists usually outline a model at the end of the research process. Such differences in time depend on the political purpose to change and control people's modern thoughts and behaviors concerned with borders and autonomy; respectively, the scientific purpose to describe and to understand people's judgment and activities. Geertz (1973: 93-95) has underlined this difference in terms of "model for" and "model of" social reality. This book may be understood as a second-order construct of a theoretical model of the innovation political world, especially as it replaces every-day experiences' first-order construct. This anthropological model of the innovation political world is, in line with Alfred Schutz (1999: 69-76), populated with *homunculi* (microscopic human beings): created by ethnographic material, consistent with the existing experiences in the innovation political world. In this book, these homunculi are placed in various situations in order for me to elucidate specific phenomena in each chapter. It might be the case that the reader encounters similar situations to understand different phenomena.

# The chapters

Based on the two ideal worlds' descriptions—innovation politics and anthropology—the book's disposition is an expedition. The idea of calling the disposition an expedition originates from the reading of Malinowski's *Argonauts of the Western Pacific* ([1922] 2002), in which he uses the concept of an expedition to describe his three trips to New Guinea for a particular scientific purpose, but also when explaining the Other's journeys between various places at sea. Malinowski navigates between various worlds in this context, both in the

physical and the literal sense. In this work, the expedition begins in the innovation political world towards a bridge that leads over to the anthropological world.

The innovation political world consists of three chapters that discuss general phenomena: harmonization, collaboration, and flow. Chapter 1 focuses on the intrinsic potential of ethnographic critique challenged in innovation political projects equipped with the harmonizing Triple Helix model. What do the harmonization processes look like in a textual and a practical world? The question is discussed to Henry Etzkowitz's textual assumptions on harmonization in the Triple Helix model, followed by two ethnographic cases concerned with harmonization practices. The theoretical inspiration is anthropologist Laura Nader's (1990, 1997) argument on Western obsession with political harmony models, which is seen as a new kind of power process. Chapter 2 outlines the operative meaning of collaboration in a life science network, especially as collaboration is one of the main themes and practices in the innovation political world. Therefore, I ask the following question: How can ethnographers understand the operation of collaboration in a life science network? The chapter takes inspiration from Manuel DeLanda's (2006) post-structural philosophy that critiques the notion of organic wholeness. Chapter 3 concerns the (re)making of the flow of knowledge by structural biologists employed in a mediator company located between the university domain and the business world in an innovation political Swedish context. In this political situation, mediator companies must be understood as the ideal position to make knowledge flow. Drawing on anthropologist Marilyn Strathern's theory of "cutting the flow," this chapter ethnographically studies the flow of knowledge: how it is locally made, stopped, and remade in the laboratory.

The bridge between the innovation political world and the anthropological world constitutes Chapter 4, which is concerned with how to ethnographically approach the transient phenomenon of contradictions in the context of innovation politics. Concerned with contradiction, I pose the following questions: How do we think about such a way of thinking? What type of creative thinking are we referring to in the innovation political world, and would it be productive to utilize such thinking in an ethnography of innovation politics? In addition, how does such thinking express itself within interpersonal relationships? This chapter's purpose is twofold: (1) to theoretically explain and socially disclose the thinking of innovation politics, and (2) to present a methodological experiment with the same kind of thinking. The first part is theoretically inspired by philosophical-physician Edward De Bono's (1970) lateral thinking, while the second part follows post-representative anthropology (generally known as the "ontological turn") that encourages ethnographers to use the Other's logical relations to understand ethnographic phenomena (see, e.g., Holbraad 2012; Holbraad and Pedersen 2017).

The anthropological world consists of three chapters that problematize specific ethnographic issues in the context of innovation politics: policy-centrism, tensionless, and dialectics. Chapter 5 is an experiment in creating alternative possibilities for thinking about ethnocentrism as a phenomenon in transformation in a contemporary, innovative, higher educational setting. Is ethnocentrism necessarily captive to the classical image of thought, or can we think about ethnocentrism differently in the new innovative settings? The chapter draws heavily on sociologist William Graham Sumner's classical work *Folkways* (1940) to disclose the constitution of ethnocentrism and discusses the transformation of its principle in the emerging innovation political research context. Chapter 6 attempts to elucidate tensionless ethnography against the backdrop of three current processes: STS ethnography, innovation policies, and the Mode 2 society. Tensionless ethnography is described as a method in which the conceptual objects and attitudes are conceived as similar among the ethnographer and the Others. As the academic world of ethnography becomes an assimilated part of the world of policy and industry, it is argued that we are about to lose a self-reflexive qualitative approach. This leads to the following: How can ethnographers become self-reflexive of tensionless ethnography? As this chapter attempts to generate a self-reflexive intervention, I draw inspiration from anthropologists such as Bob Scholte (1972), Philip Carl Salzman (2002), and Pierre Bourdieu (1997). The final chapter (7) explores anthropologists Ghassan Hage's (2012) dialectics of anthropological critique: constituted by the tension between modernism and primitivism. Hage argues that modern ethnographers who encounter other primitivist worlds become equipped with critical thinking about politico-organizational modernity matters. So far, so good. However, what if there is a crisis of modernity, in the sense that "modern" political projects (such as innovation politics) are inspired by primitivism? Hence, how can we maintain the dialectics of anthropological critique in the context of imperialistic innovation politics?

The expedition ends with concluding remarks that summarize the previous chapters, focusing on the interactive relationship between the innovation political world and the anthropological world. The summary sets the premises for the following discussions concerned with the constitution of ideology, structural power, and possible anthropological escape routes.

# 1 HARMONIZATION[1]

## The meaning of the “Bubbles”

In 2015, I had participated in a seminar in which a significant number of organizational representatives had gathered in order to establish two world-leading research facilities, ESS and MAX IV, as “growth engines” in the Öresund

[1] This chapter is a slightly revised version of “Harmonization and Ethnographic Critique in the Context of Innovation Politics” which appeared in (2019) *Kritisk etnografi—Swedish Journal of Anthropology* 2(1-2): 175–189.

region. The Danish and Swedish representatives were about to work on an interregional application with a focus on research, development, and innovation. The main idea of the application was to establish a future collaborative interregional project that went beyond national as well as organizational borders. Such work, however, demanded a project leader entrusted with the task of visualizing and thematically focusing on the diverse interests of the various representatives to make the project fruitful. As the project leader, Emil had successfully been able to simplify the heterogeneity with the help of four integrated "bubbles": Industry-Academy, Research-Education, Border Barriers-Service-Information, and Marketing. While pointing to the power-point slide with the colored bubbles, Emil said,

> Where are we today? It has been an extensive process, and many of you have been involved from the beginning. Today we have come to a point where it is possible to view a common thread running through the different projects. Previously, we were just different parts, but now we have constructed a whole. However, we need to give an account of the broader societal benefits. Creating wholeness is essential. How are we to knit the results from the various parts? The interregional project cannot live its own life without any societal connections. Everything must harmonize with each other.

Thereafter, the four interdisciplinary representatives of the "bubbles," one by one, gave an account of how to contribute to the regional, and societal development. After we had finished listening to the representatives, Emil said, "I think we can find a great interregional added value. All the parts now hang together and point towards the same thing—exchange. By integrating the four bubbles, we can create an innovative win-win-situation." Emil posed a question to the strategic project leader: "Marja, how are we to think when writing this interregional application?" Marja responded,

> It seems evident that this collaborative, interregional project could apply from EU's innovation strategy—*Horizon2020*. Most of us here are interested in innovation. So, there is an obvious connection to the two research facilities: ESS and MAX IV. These two research facilities can produce smart social and economic growth within several sectors.

As an ethnographer, I wonder how we can comprehend these public expressions in terms of a political project or model. In a rhetorical ethnographic approach, the vignette above is "thick" (Geertz 1973) with meaning as it gives a social expression of the trendsetting Triple Helix model used as an underlying ideal and practical foundation for contemporary innovation politics. The aim of innovation

projects could be comprehended as increasing the economic and social growth in the existing welfare society by striving towards one common integrated future (cf. Strathern 2004a). Policymakers and policy-linked researchers (government employees) working on "innovation" usually depart from the Triple Helix model (Etzkowitz 2004, 2005; Shinn 2002), since it provides them with idealistic and practical principles on how to construct productive relations for imagining an uncertain future. In contrast to the notion of a centralized model in which the state controls the academic and industrial worlds, and the laissez-faire model in which the academia, the state, and the industry collaborate to a certain extent across explicit boundaries, the Triple Helix model undertakes hybrid and collaborative relations between university, industry, and the state (this has been further elaborated upon in this chapter). In this context, I would like to suggest that we are dealing with a phenomenon that logically could be comprehended in terms of harmonization (see Nader 1990, 1997). Not least because of the phenomenon in question (Triple Helix) could be understood as attempts of making different worlds (expressed above as "bubbles") consistent in the sense that they become unrestricted from conflicting structures of relevance that give meaning to specific related "objects" (see Schutz 1999). The processes of harmonization, thus, poses a challenge for a modern Weberian distinction between politics and social science/ethnography (Weber 1977).

Marilyn Strathern (2000: 286–7, 2004a, 2006; see also Godin 2015, 2017) has underlined that anthropologists ought to become critically alert about the new emerging relationships, between innovation politics and ethnographic projects since there are several indications of increased harmonizing monologues on behalf of more critical dialogues. At the backdrop of this ethnographic and critical reflection on a new emerging harmonizing phenomenon, it seems reasonable to ask the following questions: What do the harmonization processes look like in an ideal textual world? What do the harmonization processes look like in a practical everyday lifeworld? The two questions are addressed through textual and empirical relations in order to paint a dynamic image of the harmonizing processes in the Öresund region. With the help of this textual and empirical case, the purpose of this chapter is to extend the disciplinary conversation on ethnography with critical strategies (Marcus and Fischer [1986] 1999; Strathern 1987).

The chapter proceeds in four steps. First, I have provided a brief historical background and development of the classic ethnographic project with critique. Second, I have given an account of my ethnographic approach to demonstrate how it generated an awareness of the relationship between harmonization and ethnographic critique. Third, I have presented the result and discussion, which is divided into two parts: The Triple Helix in its textual and practical expression. I have then moved on to the concluding remarks in which I have discussed the two

questions before extending the disciplinary conversations concerning critical ethnographic strategies.

## The intrinsic potential critique in ethnography

In this step, I have made an attempt to outline a brief historical background of the ethnographic project, against the processes of harmonization, to clarify the problem at hand. As I present a brief exposé concerned with the classical ethnographic project, and its development during the mid-1980s, the principal point is of a pedagogical matter about highlighting the intrinsic potential critique in the qualitative method.

When reading Bronislaw Malinowski's *Argonauts of the Western Pacific* ([1922] 2002), it becomes understandable that he continuously struggled with the practically and conceptually interrelated work between the modern capitalistic world and the non-modern world of the Trobriand Islanders. As Malinowski was setting out to describe the extensive and sophisticated trading system of the Kula, he claimed that the goal of ethnographic fieldwork is based on three avenues: 1) a clear outline and documentation of the culture and its structure; 2) taking fieldnotes on action and behaviors that articulate the cultural experiences; and 3) documenting the natives' point of view by (in)formal interviews. It follows that he came to discuss the problem with preconceived ideas about the meaning of "Ownership" (Malinowski 2002: 89). Malinowski underlined that the meaning of the word ownership changes depending on its relation to a specific social context. In western capitalistic societies, ownership closely relates to economic and legal institutions, which might not be the case in all societies around the world. To own an object in a western society, constituted by a capitalistic logic, indicates that people have the legal right to sell it for personal profit (cf. Barnett and Silverman 1979: 40-81). Use of the western word "own" in the description of a collective native society is, according to Malinowski, an example of how the ethnographer unconsciously relies on preconceived ideas in the ethnographic project. To sincerely understand the meaning of ownership, in a different society than our own, he stated that the ethnographer ought to deal with his or her preconceived ideas in the interpretation of other customs, traditions, or rites.

From the perspective of Alfred Schutz (1999), Malinowski's discussion engages with understanding preconceived ideas, as researchers dealing with two different provinces of meaning, also known as worlds. Schutz rightfully emphasized the intersubjective fact that human beings live in multiple provinces of meaning. In the everyday lifeworld, there are infinite provinces of meaning—such as art, economy, politics, and science—with their own logical, temporal, bodily, and social dimensions. It means that people making a Kierkegaardian "leap" between different provinces need to consider its "belonging structure of

relevance" which gives meaning to closely related material and conceptual "objects." All provinces of meaning are, according to Schutz, to be treated and assumed as systemic contexts of objects with specific reciprocal relationships to each other. When people leap between different provinces, it follows that they, initially, encounter different conflicting meanings and objects—usually known to ethnographers as *culture shock*. This kind of shocking encounter, thus, generates various methodological problems, such as the case of Malinowski's discussion on preconceived ideas. In other words, in the classical ethnographic project, here explained with the help of Schutz, there are no harmonizing relationships between various provinces of meaning. As Malinowski considers the meaning of ownership among the Trobriand Islanders, there is an intrinsic contrast between an individualistic modern Western capitalistic (economic) world and a non-modern (gift giving) province of meaning constituted by the collective. As a reader of Malinowski's world-famous book, it becomes evident that the existence of the two Schutzian provinces or worlds creates an opening for potential ethnographic critique.

As is well known to most anthropologists, Marcel Mauss succeeded in intensifying Malinowski's intrinsic potential critique when launching his groundbreaking theory of gift giving (see Friberg 2012). Today we are aware of the socio-political fact that Mauss carried on with the intellectual tradition, analytically concerned with social transformations during the nineteenth century: the rise of individualism, the decline of religious solidarity, the disappearance of traditional authorities and the growth of the market as a medium for human relationships. In this intellectual context, *The Gift* ([1925] 1972) could be measured as a search for the origin of the social contract. By taking a departure from an enormous amount of ethnographic material (foremost the material of Boas and Malinowski), Mauss was able to criticize the contemporary theories of self-interest and the idea of pure economic relations. Mauss' critique expressed itself through a proper form of gift giving theory, situated somewhere between communism and individualism, as an honorable approach for the reader to follow in his or her everyday life (1972: 88).

Along with the "representation crises" in the mid-1980s (Clifford and Marcus [1986] 2010; Geertz 1988), which seriously questioned the asymmetric relationship between the modern capitalistic world and the non-modern peripheral provinces in anthropological writings, ethnographers struggled to develop the Malinowskian ethnographic project (Marcus 1998). Consequently, the ethnographic horizon became increasingly directed towards the institutional domains of the West, which gave meaning to the expression of doing "anthropology at home" (Jackson 1987). As a result of this, the rationality among many anthropologists became that of ethnography as a new and potential ground for societal and cultural critique. In *Anthropology as Cultural Critique* ([1986] 1999), George Marcus and Michael Fischer claimed that ethnographers could no

longer operate under the ideal that they were discovering new provinces or worlds, since they were stepping into ready-made representations. Along with this argument, the authors claimed that a "primary framing task of any ethnography is to juxtapose these preexisting representations, attempting to understand their diverse conditions of production, and to incorporate the resulting analysis fully into the strategies which define any contemporary fieldwork project." (Marcus and Fischer 1999: xx) They suggested that the basic critical strategy was that of defamiliarization, which means attempts to disrupt common sense, placing familiar subjects in unfamiliar settings to make the reader conscious of different worlds (Marcus and Fischer 1999: 137). I want to propose that the ethnographic practice of defamiliarization is surprisingly much the same as the literary approach of Wendy Brown who claims that critique is about taking an object (with power to organize and govern us) "for a different project than that to which it is currently tethered" (2005: 16). However, the notion of defamiliarization, according to Marcus and Fischer, is to be agreed as critical reflection, that is, contemplation on the Others' as well as the ethnographers taken-for-granted "objects" in the everyday lifeworld. The message of this form of criticism is that the natural order of material and conceptual objects is to be considered as culturally constructed. Similarly, Strathern (1987) discussed critical strategies to utilize when doing ethnography "home." It followed that she initially avoided a binary division between "home and away." For Strathern, conducting ethnography was not about a spatial, social, or national belonging; instead, it was a strategic decision about the organization of knowledge. Being at "home" means that the ethnographer is organizing the knowledge aligned with the informants' way of organizing knowledge. In both the case of Marcus and Fisher and Strathern, it seems they attempted to construct specific ethnographic strategies in purpose to make a distinction between what we could comprehend as a Schutzian academic ethnographic province and the Others' worlds, with the primary purpose to evoke critical thought.

In sum, while reading the classic Malinowskian ethnographic project, it is possible to detect a distinction between two central Schutzian worlds, which implies an intrinsic potential critique. As was illustrated above with the help of Mauss, this potential critique could be intensified in a various situation if necessary. As noted, however, the "natural" distinction between the worlds seems to have become challenged with the emergence of the representation crisis in the anthropological discipline. Consequently, some creative anthropologists began to experiment with various critical strategies, which is grasped as a way to re-establishing the notion of different Schutzian worlds here—a return to a potential critical approach. With this as a backdrop in mind, the point is that the intrinsic potential critique in the ethnographic project—constituted by dualism that strives towards the multiplicity of the horizons of the lifeworld—again, becomes challenged in the context of innovation political projects with Triple Helix as a

trendsetting policy model. As noted in the introduction, the main reason for this form of contemporary challenge is due to the political fact that the intentionality of innovation politics is that of a single integrated future world (Strathern 2004a).

## A note on the ethnographic approach

In opposition to philosophical inquiry based on pre-constructed concepts (armchair anthropology), distinctive for the ethnographic project here is the empathic attention towards the Others' expressions (textually and practically). The relational form of listening to the Others' expressions, such as the case of the introductory vignette, creates a continuous flow of reflective questions as the ethnographer struggles to make sense of the phenomenon in the field. Hence, most of the ethnographic questions appear and force themselves on the ethnographer during fieldwork, when he or she gets (re)involved in new as well as old relations (Agar 1986). Here, the ethnographer will always find him- or herself in the middle of historical and contemporary relations that should be described—from experienced relations to textual ones in the form of a monographs or scientific articles. Strathern (2005a: vii) calls attention to this form of ethnographic knowledge production as using interpersonal relationships to uncover and create conceptual relationships, which is a reasonable way to describe my own ethnographic approach.

Ethnographic material was collected through participatory observations, interviews, and documents within a life science network in the Öresund region between 2014 and 2015. As a fairly stable node in this network, my ethnographic base was in a Swedish life science research foundation (more about this later) that arranged specific meetings aimed at discussing and creating collaborative projects over the boundaries between universities, the Danish and the Swedish state, and industries—they assumed the Triple Helix policy model (see Figure 1.1). From this node in the life science network, I became aware of the existence of the interregional project presented above.

Consequently, I followed the last two collaborative seminars to a postponed successfully funded interregional project, which gave me the opportunity to see how the Triple Helix operated in interpersonal relationships. When conducting participant observation and doing interviews, I got a sense of how the Triple Helix model influences other organizational structures, and challenges critical strategies. Accordingly, I drew conceptual inspiration from Nader (1990, 1997) because many of the ethnographic situations could be understood and explained as variations of the same theme (Lévi-Strauss 2016: 76–82)—the phenomenon of harmonization. As demonstrated by Nader, many of today's Western political models actively influence and persuade individuals and groups—as an imagined natural virtue of civilizing progress. According to Nader, the controlling

processes have shifted from social or coercive complications to become cultural or persuasive matters. In this new unipolar world order, differences and antagonism are considered "uncivilized," while the notion of harmony is seen as a western civilization process.

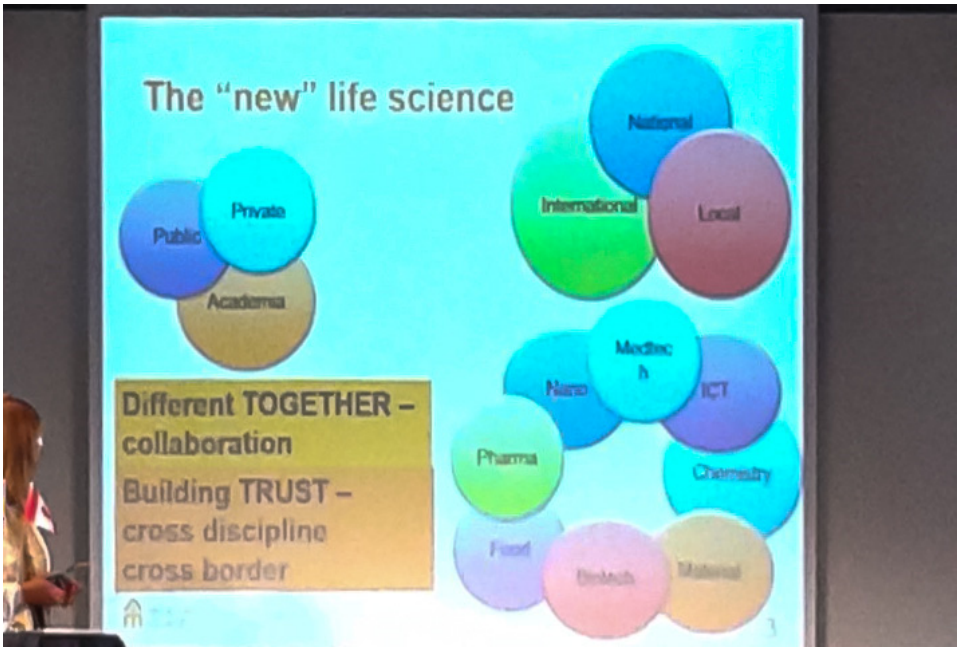


**Figure 1.1**. A presentation of the "new" life science projects

With the backdrop of these interpersonal and conceptual relations, I became concerned with the expression of innovation political harmonization processes and their relationship to the ethnographic project with potential critique.

# Harmonization processes

This step is divided into two main parts. The first part demonstrates the textual model of harmonization with a close reading of the Triple Helix policy model. The second part illustrates the practices of harmonization with two ethnographic cases. This division allows for the demonstration of harmonization processes—both textually and empirically—as an analytical precondition for understanding their influence in everyday lifeworld.

## A textual model of harmonization

The contemporary popularity of the model has led to the construction of the official Triple Helix Association, with Professor Henry Etzkowitz as its current president. The Triple Helix Association now has its own website, journal, workshops, and conferences. Consequently, there is a global network of researchers and policymakers with interest in organizational collaboration between universities, industry, and government in various contexts (see also Chapter 2).

According to the Triple Helix Association, just as the three worlds retain their own specific identities, they are also supposed to assume "the role of the other." This form of interaction based mainly on technical and economic development is the foundation of innovation. Etzkowitz writes,

> Moving beyond product development, innovation in innovation then occurs through "taking the role of the other," encouraging hybridization among the institutional spheres, creating new organizational formats, such as the venture capital firm, from elements of the various institutional spheres. (2004: 69)

It follows that the actors involved will attempt to capitalize on new knowledge in order to develop and strengthen regions (Etzkowitz 2005: 19–24). Etzkowitz argues that the model itself is a "rational way" to gather common resources and reduce competition between various worlds (Etzkowitz 2005: 72). The three worlds—universities, businesses, and the state—are seen as relatively equal partners in innovative strategic development. As such, Etzkowitz considers the model to be "endless," as it continuously generates new harmonizing options as to what a region, company, university, and state can do.

### *Etzkowitz's connection to the regional context*

I have mainly focused on the content of Etzkowitz's Swedish book *Trippelhelix – den nya innovationsmodellen Högskola, näringsliv och myndigheter i samverkan* (The Triple Helix: University-Industry-Government Innovation in Action, 2005) on account of the book's close socio-political and organizational relation to the regional context around which I conducted my original fieldwork.

Etzkowitz's book was commissioned by the Centre for Business and Policy Studies (Studieförbundet Näringsliv och Samhälle), an organization that presents itself as a politically independent Swedish think tank. According to their homepage, this organization—consisting of leading decision makers in Sweden—is concerned with making an impact on decision makers in business

and public administration through activities such as research, seminars, and publications of various kinds.[2]

As I interviewed several Swedish policymakers in the Öresund region, many of them referred to Etzkowitz's book, which in itself indicates its impact. Even though the Swedish policymakers did not always agree with Etzkowitz's line of argument, the overall influence of his ideas became apparent to me when the policymakers informed me about certain procedures. They referred to activities such as "creating regional collaborative clusters," which is a direct adoption of Etzkowitz's argument. Moreover, the policymakers explained that they had established a specific innovation unit in their own public organizational setting, which is another obvious reference to Etzkowitz work.[3] The innovation unit, for example, had the specific function to encourage and to create new innovations and thus promote regional economic and social growth, which is one of Etzkowitz's main points. The policymakers' arguments and practices, as we will see, are thus consistent with Etzkowitz's textual intentions, and any congruency between them is not a surprise for anyone who has made a close reading of the book. Already in the Preface, the reader has learnt that there has been a longstanding relationship between Etzkowitz and the Swedish innovation system, which is mainly represented by an organization called VINNOVA.[4] It is worth noting that the former director-general of VINNOVA, who at the beginning of my fieldwork was the Vice-Chancellor of Lund University, was closely related to Etzkowitz.[5] This close relationship, between the Vice-Chancellor of Lund University and Etzkowitz, seems to have played a significant regional role in promoting and organizing the establishment of ESS and MAX IV using the Triple Helix model (Carlén and Wulff 2014; Hall 2020). During my fieldwork, the Vice-Chancellor publicly claimed that the harmonization of the state, the universities (mainly represented by ESS and MAX IV), and the industrial world would lead to new innovation and, thus, regional economic and social development.

### *The university*

According to Etzkowitz (2005: 172), the main pillar of the Triple Helix model is the university because of its centrality in a knowledge-based society/economy.

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[2] See http://www.sns.se/artikel/om-sns

[3] See https://www.skane.se/organisation-politik/Naringsliv-och-arbetsmarknad/#

[4] According to their homepage, "VINNOVA—Swedish Governmental Agency for Innovation Systems—is Sweden's innovation agency. Our mission is to promote sustainable growth by improving the conditions for innovations, as well as funding needs-driven research." http://www.vinnova.se/en/About-VINNOVA/

[5] See Etzkowitz's (2005: 11–12) personal gratitude to the Vice-Chancellor of Lund University (Per Eriksson).

However, it is not the traditional Humboldtian university (i.e., a world separated from the state and the market) that he has in mind. In this context, Etzkowitz advocates the "Entrepreneurial University" as the main engine of technological, economic, and social development. It follows that the core mission of this kind of university is the capitalization of knowledge, establishing the university as an independent economic actor (Etzkowitz 2005: 37). As the main engine of the Triple Helix, the entrepreneurial university is to be controlled neither by the state nor by industry. Etzkowitz's ideal university determines its own strategic directions, regulated by the critique of students and some university teachers (2005: 56). In essence, universities will act as venture capitalists. On a meta level, Etzkowitz argues that venture capital is an "innovation of innovation"—that is, a new creation with new organizational mechanisms designed to promote technological, economic, and social innovation. Unlike holding companies, which may seek to retain ownership, the venture capital model has a strategy of withdrawing from the investment by means of sale within a reasonable time (Etkowitz 2005: 97–99). In summary, the entrepreneurial university can be characterized in terms of five partly contradictory norms that should be balanced to achieve optimal results:

1. Capitalization: Knowledge must be obtained and transferred to be of practical use. The capitalization of knowledge is the foundation of economic and social development.
2. Interdependency: Instead of being an ivory tower, the entrepreneurial university interacts with the state and business.
3. Independent: The entrepreneurial university is not dependent on other institutions.
4. Hybrid formation: To solve some of the contradictions of interdependency and independency, the entrepreneurial university needs to create new hybrid organizations.
5. Reflection: The internal organization of the entrepreneurial university must be continuously transformed as its relationships with state and business change. Corresponding organizational changes should occur within the state and companies. (Etzkowitz 2005: 43–44)

In a fully developed entrepreneurial university, research is designed through the collaboration of scientists and external actors, with the overall goal being to create useful and applied knowledge.

### *The state*

In Etzkowitz's Triple Helix model, the state is to be understood as "the innovative state." This means that the state should attempt to recreate the sources of productivity in science and technology—not as the sole actor but through new

forms of collaboration. Summarized below are the 10 principal rules of an innovative state:

1. Expand control of violence within the territory, from the public to the private sector, to promote stability and security.
2. Introduce government guarantees for private capital to increase risk-taking in relation to new investments.
3. Change the tax system to protect the nation and promote welfare.
4. Offer tax relief for research and development.
5. Introduce rules that structure economic life.
6. Introduce new hybrid institutions to promote innovation.
7. Make use of legislation to create specific rights, such as patents.
8. Ensure that universities control the intellectual property rights created by public funding.
9. Supply resources for basic research to foster innovation.
10. Supply venture capital to create a linear model of innovation. (Etzkowitz 2005: 60–61)

Etzkowitz states that many contemporary European societies (e.g., Great Britain, France, and Sweden) are constituted by a post-corporate collaboration between the state, the business world, and the entrepreneurial university. "Post" signifies the replacement of unions with universities in collaboration with the state (Etzkowitz 2005: 72). The innovative state therefore seeks new partners when striving to develop its regions. The consequences are half-public spaces—hybrids of the private and the public. According to Etzkowitz, this is what knowledge-based economic development—innovation systems—is all about.

### *Business*

In the Triple Helix model, business comprises "Relationship businesses" constituted by organizational and technical innovations. In contrast to a contract business based on transactions across explicit boundaries, a relationship business emerges in a network that transcends institutional boundaries; it is part of cooperation processes that include other units, such as research groups within entrepreneurial universities (Etzkowitz 2005: 77). Etzkowitz writes that new businesses usually emerge in response to various strategies for developing a region. Heterogeneous partners meet to solve a regional problem and get to know each other, creating long-lasting alliances and reciprocal trust; according to Etzkowitz, this kind of cross-fertilization is the key to innovation. However, knowledge-based companies are usually successful because of specific people with "double lives" who have learned from the "other side," for example, a physicist who has learned about marketing research products from an economist. The ideal person in the Triple Helix model is one with degrees or qualifications

in two or more particular subjects, which allows him or her to function as a translator—a creator of bridges—between disparate worlds (Etzkowitz 2005: 81, 85).

### *Innovation and regional development*

Etzkowitz believes that the Triple Helix model is superior to previous political innovation models that were based on the interests of particular worlds. Referring to VINNOVA's role in research and innovation for sustainable growth, Etzkowitz (2005: 72) claims that the core issue in Swedish innovation politics is to reduce centrifugal forces—that is, to increase collaboration on a local, regional level. When research is applied, is useful and comprises innovation, it also becomes a political question for the local and regional economy. In contrast to identifying regions as geographical, cultural, and industrial areas, Etzkowitz argues that we need to understand them as innovation units—Triple Helix regions. The development of such regions cannot be seen as linear because it has various points of departure and involves multiple actors. The process of regional change is neither purely market-oriented nor purely politically driven because of its heterogeneous objects and subjects. The ideal Triple Helix is observed as the hybridization of semi-autonomous actors with process perspectives, a multifunctional approach outside institution-bound thinking. The goal is a *self-generating process of enterprising* unconnected to a specific university or regional initiative. According to Etzkowitz, a Triple Helix region based on several heterogeneous sources of knowledge can reproduce itself. He further writes that the roles of the three worlds within the regional organization process can be replaced if necessary. For example, if political decision-makers are lacking, a company can encourage a branch of trade to collaborate with the universities. This is a way to ensure that Triple Helix regions continue to generate economic growth (Etzkowitz 2005: 110–112).

With these textual claims in mind, the following step enables us to understand how the harmonizing Triple Helix model is practiced in regional social life.

## Practices of harmonization

This part demonstrates the practices of harmonization by using two ethnographic cases as examples. The first case is an attempt to illustrate how, when, and why policymakers from Region Skåne (The County Council of Scania County in Sweden) use the Triple Helix model. The second case shows how the Triple Helix is used as a harmonizing organizational model for regional life science in general.

### *How, when, and why harmonize?*

When I asked how the regional policymakers were applying the Triple Helix model, some said that it is usually put into practice to establish a basis for

organizing people to meet formally. They told me that the model is used primarily as a deliberate strategy to dissolve boundaries and shorten the distances between established institutions, organizations, worlds, and professionally active people. In a conversation with a policymaker, I was told,

> We begin by buying the first lunch so that different people start talking to each other about collaboration, and this will hopefully lead to a point when people need to decide whether or not they want to be part of the collaboration. We do, however, reserve the right to put our foot down when needed ... and it is damned hard for many involved to accept that!

This statement should be understood in the context of the policymakers' desire to bring people together to "create added value" in the form of new job opportunities and new innovative products in the market. Another policymaker said that this is "a way of modelling the social world—in a nice way." Despite this nice opportunity for modelling social realities, it is clear that not everyone considers crossing boundaries and dissolving distances as being in their interest. As the quotation illustrates, the policymakers sometimes need to "put [their] foot down." This prerogative depends on the fact that they perceive themselves as being entitled to remind people to take responsibility for collaborative regional development. The Triple Helix model—with the presupposition that collaboration is inherently good and competition bad for regional development—seems to aim to harmonize divergent interests. As noted by Strathern (2006: 192), such innovative, collaborative social situations might well be conceived as forms of micromanagement. I was told that the management of harmonizing differences emerges from policymakers portraying themselves as having "a regional overview."

It is not that the policymakers uncritically apply the Triple Helix model. During my fieldwork, it became obvious that although the policymakers see the model as "a good tool to think with," the model is treated as far from being complete. It has built-in limitations, which are occasionally discussed among policymakers. This means that the three strands of the helix—academia, business, and the state—are actually seen as excluding other partners. Some policymakers have therefore begun to experiment with involving one or several other strands, such as "customers," "citizens," and "NGOs": These extended social models are referred to in terms of Penta Helix or Quad Helix. However, in accordance with Etzkowitz, I never heard any discussions about involving unions (as a form of modern representative democracy) as an additional fourth helix.

After several months in the field, I wondered when and under what social circumstances do the policymakers treat the Triple Helix model as a useful organizing resource. It soon became clear that the model appears especially useful

when working with organizations and individuals who have long historical backgrounds of self-determination in professional working life; therefore, it should be well suited for academics of both public organizations and entrepreneurs from the private sector. It is assumed that academics are usually very difficult to harmonize; in this regional field, most academics are described as acting like "cats," implying that this group is difficult to manage and are perceived as individual mavericks. In an interview with another policymaker, I asked whether he had experienced any problems with academics, and he stated that this was "a really difficult group." He told me a story about a specific meeting that was intended to encourage material scientists to collaborate with representatives of the state and entrepreneurs from the business world. The policymaker in question remembers it as an unpleasant encounter, as the scientists responded to his invitation by asking, "Who are you to define Material Science?" He explained that the material scientists essentially questioned his position as a representative of the state. They were upset because they imagined that he was trying to define and control what "the research community should consider relevant collaborative inquiry." He said that he used the Triple Helix model to illustrate how collaboration could bring in "extra economic funding for further research and education." When it came to the last group, the entrepreneurs, it seemed that many policymakers were fairly patient when dealing with them. This kind of patience, I was told, depends mostly on the economic fact that "the entrepreneurs are not funded by the state," unlike most academics. However, according to the policymaker, the most difficult task with this group was to convince the entrepreneurs of "the added value in the long run." This was because "most of the entrepreneurs have a short-term economic business perspective ... they find it difficult to see what's in it for them." It follows that some policymakers apply the Triple Helix model to make it clear to the entrepreneurs why they should consider the latest academic research. The point here is to enlighten the entrepreneurs about how collaboration will make them more competitive in the markets. Many policymakers argue that maintaining or improving one's position in today's markets is only possible if entrepreneurs collaborate with representatives of the state and academia (including both research and education).

The main reason for harmonizing social realities seems to depend on the policymakers' firm belief that hybridizing various worlds and people will create innovations that advance regional, social, and economic development. Such harmonization, I argue, is the practice whereby most regional policymakers appear to find *hope* in the new knowledge economy (Strathern 2006). It should also be emphasized that such harmonization—as it symbolically explains and represents three heterogeneous objects (i.e., universities, business, and the state) and subjects (i.e., researchers, entrepreneurs, and policymakers)—enables

policymakers to control and manage various heterogeneous groups at a distance. I was told by a policymaker that this is not a question of party politics:

> If you think about most representatives today—whether Social Democrats or from the Moderate Party—nobody is against Triple Helix or innovations. I cannot think of anybody who would disagree with the model ... it would perhaps only be an extremist party that would raise such a critical question.

He was not alone in stating that most politicians favor the Triple Helix model, and it could be argued that the practice of harmonization instills a kind of hope in contemporary Swedes.

To summarize, the Triple Helix as a harmony model is used by policymakers as a micro managerial tool by bringing together historically autonomous actors—as a harmonizing apparatus to persuade people to collaborate in line with their own interests. This is done on the basis of instilling hope for future regional development.

### *Harmonizing life science*

After illustrating how, when, and why many regional policymakers apply the Triple Helix to harmonize various social realities, this case has a more concrete research orientation. I have focused on the Triple Helix as a harmonizing organizational model for regional life science in general.

When I first contacted one of the main Swedish regional initiators of a life science collaborative network in southern Sweden, I asked if it would be possible to interview their organizational strategists. As the foundation (called Life Health in this example) is partly sponsored by the county council of Region Skåne in Southern Sweden, the organizational strategists were very open-minded and informed me that it would be possible. Although they were extremely busy participating in other activities, after several weeks I made an appointment to conduct my first interview. I went for the interview well prepared, but the strategist said, "Sorry, but I am not sure you will need that," pointing to my digital tape recorder and interview questionnaire. I was a bit surprised, as she told me that she had prepared "some slides for me" and that I could ask questions "after the brief lecture." I was lectured about the foundation's history and its close relationship to the organizational structure of the foundation. Beginning with the historical emergence of Life Health as a foundation, she explained the political preconditions. "Something had to be done on the regional level," she explained, because one of the region's largest life science companies had decided to move its operations to another region. As a result of this relocation, "approximately 900 well-educated life scientists suddenly found themselves unemployed," which prompted reactions from both private and public investors. Eventually, Region

Skåne in collaboration with Lund University began to think of a collaborative forum for regional life science based on the commercial fact that life-science knowledge can easily be patented and transformed into exclusive products in the market(s). The strategist continued the story by explaining that a well-known entrepreneur was contacted who later "donated ten million Euros to establish the present foundation." The entrepreneur, policymakers, and representatives from the university established a regional forum for research and innovation concerned specifically with life science. The strategist clarified that the collaborative relationship between the university, Region Skåne (the state), and the entrepreneur should be seen as a kind of Triple Helix, which is the explicit organizational structure of the foundation. "This is," she argued, "a hybridization of the private and the public spheres."

Later, when discussing the harmonization of regional life science communities with a policymaker (engaged with the regional work of Life Health), I was told,

> Policymaker: It is within these kinds of hybridized organizations that universities become more like companies, concurrently as the companies become more "academized." When they drift together, this creates possibilities for new collaborative projects. One can walk in, out, and over to academia. This is an innovative way to work together. It might have been the life scientists who first started collaboration between universities and companies ... The Triple Helix boundaries are very fluid, and I am positive that this will increase in the future.
>
> TF: So ... there are no longer any explicit boundaries, as in the case of modern society?
>
> Policymaker: No, it is about new frames. The old industrial society—with its manufacturing industry—was part of a different period. As I said, companies today are becoming more research-oriented, and the universities are becoming more entrepreneurial. It is natural that people are crossing boundaries. And the personal relationships are becoming tighter and tighter.
>
> TF: What role do you think today's companies have in regional development?
>
> Policymaker: It is all about collaborations between companies and universities. Companies like to be close to universities, research, and development. They usually drift together in the long run.
>
> TF: So ... what do you think will happen to the critical practices as universities collaborate with companies? Is it possible to critique the Triple Helix, for example?

> Policymaker: Well ... those universities that depend on government funding will have no problems criticizing policymakers and the state ... even though they get their money from the state. But sure, if the universities are completely in the grip of the companies there may be some problems. It might be easier for a life science-oriented rather than a humanities-oriented university to work with companies. If a university brands itself as red [i.e., leftist], it will have difficulties attracting money from the business world. Well, I mean it is a free choice ... but, sure, there are certain complex problems.

This dialogue concerning the Triple Helix and life science illustrates how regional companies and universities seem to merge into a common identity, while the traditional modern boundaries between the worlds are becoming more fluid. The Triple Helix model is seen not only as having regionally productive functions but also as potentially causing fewer critical strategies.

## Some thoughts about critical strategy

In this chapter, I have argued that the intrinsic potential critique in the ethnographic project is challenged in the context of innovation political projects equipped with the harmonizing Triple Helix model. To make this argument, I started with a brief disciplinary discussion to make the point that the classic ethnographic project is (re)constituted by the dualism between different worlds, which generates an intrinsic potential critique. From there, I scrutinized the harmonization processes of Triple Helix—in its textual as well as its practical expression. In this analytical context, the harmonization processes appeared in an overlapping manner in which the subjects (the concerned people) are supposed to take "the role of the other," while the objects (the concerned institutional worlds) are to be hybridized with each other. It follows that the entrepreneurial university acts as a venture capitalistic motor, while the innovative state simultaneously attempts to hybridize the private and the public, while the related business operates in networks beyond institutional boundaries. If this works out, the Triple Helix model will ideally make it possible for the emergence of a self-generating process of enterprising—an endless, harmonizing transformation process towards *one* everyday lifeworld. This seems to be essential for the formation of a knowledge economy, which has a focus on regional development constituted by commercialized knowledge. Consequently, as presented in the two ethnographic cases, the Triple Helix model provides policymakers with textual-practical-possibilities of challenging critical strategies. In this sense, it seems relevant to remind ethnographers that the academic ethnographic project is organically situated in the emerging entrepreneurial university (cf. Strathern 2000a, 2004a, 2006).

The relationship between the disclosed harmonization processes, in the context of innovation politics, and the ethnographic project is generative to think through for contemporary ethnographers, primarily as it extends the conversation concerned with critical ethnographic strategies (Marcus and Fischer 1999; Strathern 1987). The primary critical strategy I have in mind is not about defamiliarization, nor concerned with the organization of knowledge, but instead with the (re)establishment of a Schutzian (1999) ethnographic province of meaning or world. Such a critical strategy would imply a structure of relevance constituted by the modern Weberian differentiation between politics and social science (Weber 1977: 25, 41). While the province of innovation politics gives meaning to "knowledge" as a means to achieve something else (the political pursuit of power or influence on checks and balances), the province of ethnography would signify "knowledge" for the sake of knowledge (social scientific analysis of political processes, such as harmonization).

# 2 COLLABORATION[6]

## Contrasting the phenomenon of collaboration

At the Medicon Valley Alliance's 2015 Annual Meeting in Copenhagen, Denmark, the Swedish life science coordinator and social democrat politician Anders Lönnberg enters the stage. He tells a story of two friends who are in the forest when they suddenly encounter a big bear. "One of the guys quickly puts on his sneakers," Lönnberg says, "while the other guy tells him":

> You know you cannot outrun a bear.
>
> I know. But I can run faster than you.

[6] This chapter is reproduced, with minor changes, from an article titled "The Phenomenon of Collaboration in a Life Science Network" in (2018) *Journal of Organizational Ethnography* 8(2): 171–184.

The well-dressed audience is laughing, and Lönnberg makes his point by saying, "We need to move away from competitiveness and look for added values. If we are going to afford a good standard of living, we need to collaborate." He emphasizes that the life science sector is extremely important for the welfare society. The golden key to future well-being is "the Triple Helix model," he stresses, which means that there must be close collaboration between healthcare, academic research[7], and the life science industry. The idea that is portrayed in Lönnberg's talk is that the collaboration process between the three different worlds will create new innovations. Consequently, an increase in collaboration between the private and the public sectors will also take place; and the region will be prosperous in terms of innovation, providing economic ground for re-building the welfare society. "We can beat the world through collaboration," Lönnberg finally announces. Many people in the audience are nodding in affirmation. As an ethnographer having spent the last year doing field work at the life science network, Lönnberg's declaration is not news to me. I have heard the same collaborative discourse in other situations within the Öresund region.

Recently, researchers (Hedensted Lund and Vaaben 2014; Vaaben 2014b) have noted that there is a distinct shift in governance when it comes to the public sector, that is, from neo-classic economic theory with a focus on competition (as the main driving force of innovation) to economic theories concerned with collaboration (as the main driving force of innovation). In contrast to the so-called New Public Management attitude that follows neo-classic economy (with its focus on homo economicus, self-interest, market mechanism, and investment in existing things), the recent New Public Governance (NPG) principles takes their departure in the altruistic collaborative human being, common interests, the idea of a growth engine, and investment in things to become (Wiesel and Modell 2014). Utilizing the collaborative NPG principles, policymakers argue that they can create various "win-win-situations" and synergy effects in the context of the new emerging economy based on producing and selling knowledge. The key actors in these kinds of collaborative settings are universities (scientists), industries (entrepreneurs) and the state (policymakers). The collaborative construction of the three actors is explicated in the logic of the expression of the Triple Helix policy model (see Etzkowitz 2004, 2008) and as a prolongation of "The New Production of Knowledge", founded in the early 1990s (Shinn 2002).

The main goal of the Triple Helix is to encourage collaboration between the three actors in order to produce innovative, entrepreneurial subjects and objects. The reason for this kind of policymaking is because policymakers want to expand economic and social development (see Chapter 1). The university, now turning

[7] In the life science network, the term "academic research" usually connotes systemic investigations done in university domains, as in contrast to industrial research outside the university.

into an entrepreneurial university, represents a centrality in the collaborative processes, because scientists are seen as producers of new knowledge and as key actors in the new emerging economy based on knowledge. As a "naturalized model," the Triple Helix has often been (re)presented as the second revolution in the history of universities, spanning a period of 800 years. This implies that representatives of the model interpret it as a natural progression starting from teaching (i.e., the circulation of knowledge), to teaching and research (i.e., the circulation and production of knowledge), to a final stage of entrepreneurial activities (i.e., the circulation, production, and capitalization of knowledge) (Krige 2004). The Triple Helix (Etzkowitz 2004, 2008) has been presented as a new policy model in contrast to: the centralized model in which the state controls academia and industry; and the laissez-faire model in which academia, the state, and industry collaborate to a certain extent across explicit boundaries. Taken together, the Triple Helix model undertakes collaboration of university, industry, and the state by striving to go beyond strict boundaries and autonomous viewpoints. Triple Helix representatives generally an attempt to hybridize their surroundings and capitalize on new knowledge to further develop and strengthen regions—as disclosed in the case of Lönnberg's declaration (mentioned above).

Inherent in the Triple Helix literature and discourse seems to be a view of collaboration as an organic system in the sense that it takes reciprocal and harmonious social relations for granted, in the context that they are naturally working toward the same goal.[8] Given that Triple Helix policy presupposes an organic system at work, ethnographic researchers have explored other possibilities. For example, a post-structuralist approach to ethnography has shown that collaboration is not about the harmonious integration of various interests that are at stake. Rather, it provides a space for nonconformity, pragmatic demarcation lines, and possible practices to avoid assimilation to common goals (Gorm Hansen 2011, 2017). Therefore, a virtuous starting point to understand collaboration may be Manuel DeLanda's (2006) social theory.

Drawing upon the philosophy of Gilles Deleuze, DeLanda (2006) argues for a theory of assemblage, through convincingly elaborating on how a whole is fabricated by heterogeneous parts. The main enemy of a theory of assemblage is the metaphor of an organic system, which represents an analogy between management of an organization and the biology of the human body, that is, in that the organs work together for the organism as a whole. Following DeLanda (2006: 9), an ethnographic investigation of collaboration might start from an understanding of a "whole in which the component parts are self-subsistent and

[8] Collaboration as a vital part of the innovation system is often described as an organism (see, e.g., Rahayu and Zulhamdani 2014; Mercan 2011).

their relations are external to each other".[9] Such a view provides a stark contrast to an organic system, in which the parts are linked by relations of a self-sufficient interiority (i.e., the relations constitute the identity of the parts). According to DeLanda (2006: 10), "relations [of exteriority] imply, first of all, that a component part of an assemblage may be detached from it and plugged into a different assemblage in which its interactions are different." Thus the whole cannot be reduced to its parts since they can easily be removed and used in different assemblages with diverse interactions with other parts. As there are no logical necessary relations, and as we are dealing with relations of exteriority, it seems that the parts of the assemblage might stabilize, destabilize as well as legitimize the identity of the whole. In other words, collaboration is constantly becoming (i.e., changing in a constant process). The question to be asked then is the following: How can ethnographers understand the operation of collaboration in a life science network? In the following, I will propose an interpretation to the phenomenon of collaboration using illustrative examples from my fieldwork in the Öresund region.[10]

Having established emerging research questions from an initial understanding of policy discourse and literature on collaboration, the chapter is organized using four sections. The first provides an explanation of several methodological insights from the fieldwork. The second sheds light on the pre-organizational code and the intensification processes of the same. The third focuses on the processes of the (de)stabilization of collaboration, while the fourth illustrates the conditions under which collaboration becomes legitimized. Finally, the concluding remarks briefly discuss what ethnographers in organizations could learn from this illustrative case.

[9] This is a procedure of counterinduction, that is, a way of developing a hypothesis that is incompatible with accepted theories (see Feyerabend 2000: 34–45).

[10] Data were collected through participatory observations, interviews, and documents within a life science network in the Öresund region between 2014 and 2015. As a kind of a stable nod in the changing network, I had my ethnographic base in a Swedish life science research park that arranged specific meetings. The meetings in question aimed to discuss and create collaborative projects over the boundaries between universities, the Danish and the Swedish state, and industries—they assumed the Triple Helix policy model. From this nod in the life science network, I also followed various events, conferences, projects, workplaces, and meetings.

# Hermeneutic relations

Excerpts from interviews will serve as examples illustrating what was originally found during a year of ethnographic fieldwork. Hence, the examples as provided in the interviews should not be seen in any other light than illustrative.[11] The purpose of this particular section is to demonstrate the underlying hermeneutic method that pays specific attention to relations. If we are to take seriously Marilyn Strathern's (2005a: 6-9; see also Lebner 2017) notion that anthropological knowledge production is always relational, that is, both interpersonal and conceptual connections, ethnographic research can be seen as a hermeneutic process. The hermeneutic approach is of a relational character as it takes the departure from the premise that ethnographic research problems and questions constitute a response to social relations (Agar 1986, 2013). For the hermeneutic-inspired ethnographer, questions and problems arise and force themselves on him- or herself in encounters with Others (literature, discourse, people, etc.). For that reason, it seems relevant to illustrate the context of the relations from which the questions and problem emerge (cf. Gadamer 1997: 173-181; Di Cesare 2007: 153-160). As such, I will briefly illustrate some relations concerned with a policy image of an organic system, the interpersonal relations that changed my perspective, and the consequences for the analytical, conceptual relationship.

## Organic system constituting a whole

When conducting ethnographic fieldwork in the life science network, collaboration was consistently portrayed as a kind of organism. Even though my discoveries are based on the fieldwork as whole, I would like to provide some illustrations using excerpts from some interviews of policymakers as examples. In this particular interview, I asked whether one ought to treat today's companies as collaborators or as competitors to the society as a whole. The policymaker answered:

> Today, most companies understand the complex world in which we are living. Nobody has the answer to everything. Once one realizes this, one needs to invite people to intelligent conversations about collaboration and co-acting. The challenges we stand in front of today cannot solely be solved technically—as the

[11] As an ethnographer, I am not convinced that interpersonal relations from fieldwork could be validated by an external objective source. My statement follows Csordas (2004: 475): "Evidence has to be evidence of or for something, and that something is a hypothesis in the broadest sense." The hypothesis in this chapter (grounded in interpersonal relations from the fieldwork) is that of collaboration as an assemblage. Hence, rather than ethnographic "evidence," I will make use of ethnographic "illustrations" and "examples" (cf. Althusser 1968: 7).

> case of homelessness. We are standing in front of plenty of challenges that demand that we are working together. We [policymakers] often take the departure from the significant challenges of the UN and EU, and then, we present them to companies to see if they are willing to solve specific parts. I think there is a significant shift going on as we speak. Even the most extreme capitalists realize that three-monthly capitalism is no longer the best way to attract customers and capital: it means that there is less difference in opinion and no competition when collaborating with each other.

What is illustrative in this excerpt is the notion of harmonious relations embedded in the collaborative discourse. Similarly, another decision maker within the public sector explained:

> I think the collaboration between companies and universities will increase over time. There are two main reasons for this. Today, universities have become more like companies. Concurrently, companies become more academized. As they are getting more alike, then one can better create collaborative projects. People can walk in, out and over to the university—working together in an entirely different way towards the same goal. This collaborative approach might not be accurate for all companies, but for many it is. The companies that started this trend were the pharmaceutical companies that worked in alignment with the Triple Helix model. The boundaries of the Triple Helix are liquid. Occasionally, one works within the public hospital, other times within a private company, or sometimes within the university. Or, concurrently at all three places. I am entirely convinced that this will increase over time since we are all dependent on each other when we together are trying to solve everyday challenges.

Hence, there seems to be a robust policy notion of internal relations, that is, an idea of interdependency on each other when working toward a common goal.

As an ethnographer, I also participated in and observed a conference on a collaborative project with invited speakers from the region—government policymakers, industrial entrepreneurs, and university researchers. The first speaker was a professor of nuclear physics, who related that the project had received considerable attention because the participants had collaborated across cultural boundaries and that the project today "seems to be a model for many other regional collaborative partnerships." The professor claimed that the collaborative project had prepared regional companies to take part in future markets of complex research equipment. He stated, "I hope that the procurement, manufacturing, and delivery work related to research facilities are not going to land outside the Öresund region. Emotionally ... it feels like the regional companies are ours." In this context, he was referring to the regional

entrepreneurs who were part of the collaborative project. He argued that they could not manage without each other. Overall, he claimed that the importance of the relationship between scientists and the industrial entrepreneurs was necessary for success, in the sense that they were emotionally attached to each other.

What I would like to illustrate with these three examples is a general notion of the policymaking of collaboration as constituted by harmonious relations, internal relations, common goals, as well as necessary and attached parts. Accordingly, the policy expressions contribute to an initially hermeneutic understanding, meaning that we are dealing with an organic, collaborative discourse.

## Interpersonal relations

Despite the organic, collaborative policy discourse, there were examples of fundamental disagreement, uncommon goals, external relations, and self-subsistent parts in the social life of the network. In particular, two interpersonal relational events called attention to a different understanding and interpretation of collaboration as an organic system.

First, I recall an event when a female entrepreneur loudly stated the following in a network meeting: "When it comes to business there is nothing but competitiveness—there is no such thing as collaboration in this world." At first, the room filled with silence. Then, some of the people around the table began to, rather politely, oppose her statement:

- How would it be possible to generate innovations in a competitive environment?
- Could you not benefit from collaboration?
- What about added value and win-win situations?

At this moment, the entrepreneur responded to the three questions with "I'm sorry, but this is the way I look at business. It seems to be a more realistic point of view." The participants did not seem convinced, and some were shaking their heads in disbelief. Soon the meeting came to an end, and I was unable to follow up on the situation directly. When interviewing the female entrepreneur (who had made the opposing comment) a week later, she explained that the representatives of the foundation had reprimanded her. She was informed that in order to be part of the collaborative network, "it is important to be a team player." The point here is that this interpersonal relationship illustrates a cut in sociality (Strathern 1996), which further reveals the social fact that collaboration is not organic. In short, the entrepreneur was in fundamental disagreement with the others during the meeting, and she had different goals to fulfill.

Second, what struck me after a couple of months was the continual flow of people and organizations (see also Chapter 3). As a newcomer, I had difficulties

making sense of which participants and organizations belonged to the network. After five months of fieldwork, I realized that I had encountered at least 15 organizations, with twice as many representatives. I continuously had to figure out what role the participants and their affiliations played in the overall life science context. At one point, I actually had managed to discern some participants' primary roles, only to discover that those participants sometimes had disappeared and that new participants kept showing up. Occasionally, participants even disappeared after an hour or so, and I never saw or heard of them again (e.g., in one of the meetings, one participant joined us via phone and was never actually on site, nor heard from ever again). On several occasions, it was announced that participants on the mailing list were relevant, but that they were too busy to show up at meetings as they were participating in other meetings. The absenteeism indicated that some participants were part of other ongoing events, projects, strategies, places, universities, companies, policies and so on. The point here is that the flow of people illustrates that the social reality of collaboration is formed by external relations (independent participants and organizations), while at the same time, some participants and organizations function as self-subsistent parts (connected to other kinds of assemblages).

What I would like to illustrate with these two interpersonal relational events is the hermeneutic interpretation of the practices of collaboration as constituted by inharmonious relations, uncommon goal, external relations, and self-subsistent parts.

## Conceptual relations

As collaboration (in line with the interpersonal relationships that I encountered during the fieldwork) appeared to be something different from a thing as a whole, I became deeply concerned with the issue of how to conceptually organize the analysis. What kind of analytical concepts could give meaning to the inorganic phenomenon of collaboration? Taking theoretical inspiration from the social theory of assemblage, which treats phenomena as becoming (DeLanda 2006), I generated the following sub-questions: What argument is the most intensified during network meetings? How is collaboration (de)stabilized? Under what conditions will collaboration become legitimized? The three questions were addressed to the ethnographic material, which means that the embedded relational concepts (intensified, destabilized, stabilized, and legitimized) became organizing principles. The conceptual relations will also provide for collaboration as an assemblage in becoming—in a continually changing process—against the policy notion of collaboration as an organic system.

# Pre-organizational code

By way of ethnographic introduction, this section will shed light on the pre-organizational code of collaboration by analyzing how people in the network respond to central arguments. Of particular interest are two main processes (and the intensification of the latter)—a monolithic argument (university) and a dualistic argument (university/industry).

## Monolithic and dualistic arguments

During the network meetings, the participants primarily discussed the role of life science in relation to the ESS and MAX IV research facilities.[12] In one meeting—which included policymakers, professors, entrepreneurs, and a director—the future use of the two research facilities was discussed. In the middle of the meeting, a professor of a life science makes her point by saying, "Basic research is to be valued as very important in the future use of ESS and MAX IV." When people in the room did not respond immediately, she continued by arguing that it is "a fantastic opportunity for academic life science research to make new scientific breakthroughs." For many of us who are listening, it becomes clear that the professor's argument implies that the university domain is to be seen as primary—in relation to the business world. Her attention is directed toward the university, which gives listeners no (or very limited) space to take other "worlds" or "domains" into consideration. Even though the participants do not entirely disagree with her, neither do they fully accept her statement; I noticed some people moving their heads very slightly from side to side, indicating some skepticism. It appears that an argument that shows a type of privilege to a specific node in the network, without any explicit collaborative acknowledgment, generates little interest or follow up, and thus fades away. In other words, the professor appears to be monolithic in her argumentation (university), and hence the conversation turns in directions other than what was intended. As the situation fades out, the moderator suddenly says, "So how can we make the most out of the two research facilities?" Her smooth intervention gets the group back to discussing the issue at hand.

After a while, a male life science director started arguing that the main goal for the two research facilities must be seen in relation to "collaborative agreements between industry and academia." Looking around the table, I noticed that some participants were smiling and nodding in affirmation. The director's argument appears to stand in contrast to the previous one from the professor. The director continues by underlining that even though his official mission is to promote academia, he always "tries to pay attention to the needs of the industries."

[12] For more information, see the Introduction.

Confessing "his secret," as he calls it, the director holds his index finger to his mouth and says, "Sssssh, don't tell anyone ..." People in the meeting room begin to smile without any noticeable objections. The life science director's "secret" announcement and the participants' silent countenance, indicate that he is using the right moral model (D'Andrade 1995). The overall discussion heats up and participants begin to converse about various collaborative angles that can be utilized between academia and industry. It should be emphasized here that the life science director's argument conforms with the point of view of many policymakers and decision makers (as illustrated above). This shows that the notion of collaboration follows the theoretical assumption of the Triple Helix policy model, that is, collaboration between policy, industry, and university.

In contrast to a monolithic argumentation (university), dualistic arguments (university/industry) have currency within the network and at times become intensified in the right socio-political circumstances within the network.

## Intensification

In another network meeting (15 people around a table: policymakers, professors, entrepreneurs, and director), a regional policymaker says that it is "essential that we look at the chain from academic idea to a product on the market, if we are going to make the most out of ESS and MAX IV." As he continues to point out "The chain"—he steps towards the whiteboard and grabs a marker to outline a production flow from an idea inside academia, via industrial collaborative needs, to a finished product on the market. "This," he says, "is a productive flow chart." People in the room begin to discuss the issue in abstract terms such as "ecosystem" and "innovation system." From having observed lectures, workshops, seminars, and interviews (as ethnographic events), I understand how this relates to the general notion of "open innovation" (see, e.g., Chesbrough 2003) and "innovation of innovation" (Etzkowitz 2008). Similar to my previous discussion of the meaning of "system" with the policymaker in question, he explained that the collaborative environment ought to be likened to an organism, that is, all institutions (academia, industry, society and market) are deeply integrated with each other.

In the discussion that follows the meeting, a male professor of material science and a female life science entrepreneur begin to discuss the issue of how to expand the research facilities for both academic scientists and industrial researchers. The entrepreneur makes a suggestion: "We need concrete case stories—cases that show successful collaborative outcomes. We need locomotives!" Responding to her statement, the professor says:

> We need roadshows, that is, free consulting for companies. We need to ask the companies about what kinds of problems they have and tell them that we can solve their problems with the help of the research facilities. This ought to be the first step. The industry needs help with their problems, and we can offer them solutions. We need to create links between local scientists and industries. We need to create institutes to develop the collaborative link between university and industry, and thus develop the competence.

The professor's argument (for a roadshow) refers to the daily practices of the male life science director (mentioned above), who travels around Sweden and Denmark to enlighten academia and industry about the advantages of ESS and MAX IV. At this point, the regional policymaker gets back into the discussion saying, "Yes, yes ... a common platform ... collaboration ... a hub. We need an interface between industry and university." He ends by proclaiming that this is the way that "added value becomes possible" (we recognize his statement along with Lönnberg's declaration on added value, as included in the Introduction above).

To sum up, I would claim that the dualistic argument—academia/industry—seems to be the pre-organizational code for collaboration in the life science network. As illustrated above, in the right socio-political circumstances, the dualistic code becomes intensified and thus gives expression to various conceptual relationships (e.g., an interface) between seemingly imaginary distinct worlds or domains.

# (De)stabilization

How does this abstract dualistic code for collaboration become (de)stabilized? In order to answer this question, I will present two different events—a written report and an interview—as cases of stabilizing and destabilizing processes, respectively.

## Stabilizing collaboration

At the beginning of the fieldwork, the representatives and the participants in the network meetings decided that two representatives of mediator companies (who were also part of the network) should write a report (2015)[13] concerning the "mediating business" between academia and industry. They were asked because of their skills in mediating between academia and industry. With 25 years of

[13] To protect the privacy of the mediator companies, I have decided not to use the report as a reference.

experience working at the interface between academia and industry, "they were well suited for the job," the participants claimed.

The aim of the report was "to support stakeholders in the life science communities in their ambition to leverage and harvest from the new research facilities ESS and MAX IV currently being built in Lund." The report thus provides a background of statistical evidence to show a general decline in Swedish life science, in particular in the southern region where the two research facilities are under construction. Readers were immediately informed that stakeholders had paid too much attention to material science, while, at the same time, they had ignored or forgotten about life science interests. The report was thought-provoking but contains a great number of "inconsistencies." For example, arguments claimed that there are no major scientific differences between life science and material science but that the latter had been given more attention. How are the readers going to understand these internal inconsistencies of the textual report? My point here is that readers need to see the inconsistencies as an expression of the authors' mediating role between various worlds or domains. For the mediator companies, inconsistency is an expression of everyday working life "in between" worlds (cf. Douglas 2002).

In this context, life science is somehow to be understood as being more closely connected to the world of pharmaceutical and cosmetic companies: as an expression of applied science. To "harvest the potential of MAX IV and ESS," the authors encourage stakeholders to listen to the industrial leaders and their needs. From an academic, scientific point of view, it implies an inverse strategy—a move from "a solution looking for a problem" (basic research) to "a problem looking for a solution" (applied research). As a reader, one might ask why the authors want to switch the gaze. Their main answer was the following: "The environment at and around the facilities and associated universities has great potential for new products, new companies, and new jobs." In alignment with the European innovation policy derating (the Triple Helix model), there is an assumption that this is an excellent historical opportunity to create new innovations. The authors argue that innovation as a collaborative project is to be seen as something beneficial for all citizens. Here, it is worth quoting the report at length:

> Inspiration to start seeing one's own or someone else's research as possible innovations is clearly needed, and we believe that Sweden has the possibility to take "the entrepreneurial course" to another level. Our suggestion is that an entrepreneurial course be made available and that participation is encouraged for all employees at MAX IV and ESS, based on a European Committee Report indicating that entrepreneurship education makes a difference. [...] It is important that as many individuals as possible start wearing those imaginary glasses that

> make you observe potential innovations or general needs that have a large impact. By this we do not mean that all scientists or engineers should become entrepreneurs, absolutely not! But learning some of the language of business and seeing more of what the non-scientists are seeing is an important parameter for success. For life science, the course could be taken further and made obligatory for hospital employees and PhD students in chemistry, biology, and medicine.

Note the double inconsistency: not all scientists or engineers must become entrepreneurs, but all learn the language of business and wear the "imaginary glasses"; and one should not force scientists to take the entrepreneurial course but make it mandatory for life scientists. These two seemingly inconsistent arguments, however, should be seen in relation to the mediator companies' everyday working life as both scientists and entrepreneurs. It is maintained that mediator companies will become ideal functional interfaces between the resource (the research facilities) and the users (academic groups as well as industrial clusters). The authors write:

> A functional interface [...] needs to be anchored in both worlds, functioning as translator and interpreter, personal assistant and counselor. An interface is nothing on its own, it is shaped by the two interacting structures. The mediator companies surrounding MAX IV in Lund are an important part of such a functional interface and an establishment that stakeholders in the region can take advantage of.

As the mediator companies have a good understanding of the business and field of industry, as well as the scientific life science communities, it is further claimed that their role would be to understand "the problem at hand, expressing the hypothesis to be tested, designing the experiment and, after measurements and analysis, wrapping the result in the correct context to be finally reported in front of a management board that demands a clear answer and advice." The mediator companies (as hybrids of science and entrepreneurship) are thus perfect for taking care of the collaborative processes, from problem to final report.

The report is a noteworthy because of how the dualistic code of academia/industry becomes stabilized with the help of existing mediator companies (see Chapter 3). Here, the abstract conceptual "interface" is filled up with an existing company with strong "translation skills." It should be noted that the report is used in various situations, with the purpose of making a real impact on social and political life. However, this stabilization process is not to be understood as lasting forever in the socio-political world.

## Destabilizing collaboration

To this point, we have learned that the successful pre-organizing processes of collaboration imply a dualistic code (industry/university) and that the phenomenon becomes stabilized regarding mediation (such as the case of mediator companies) that brings about an agreement of the two worlds or domains. Furthermore, mediation seems to be suitable for life science research, as the discipline often is characterized as doing applied science. As expressed in an interview with the Vice President of the life science research park (where the previous mentioned network meeting took place), the hierarchy and differentiation between applied and basic science constitutes a complex social meaning in the life science network.

When asked about the hierarchy between applied science and basic science, the Vice President responds by saying that life science is mostly viewed as doing applied science. It depends, she says, on the disciplinary fact that life science, without exception, works closely with pharmaceutical companies:

> We life scientists are the "horrible" applied scientists—connected to pharmaceutical companies. I do believe there is a hierarchy between researchers. There is an unwillingness to become applied. I do not get it ... even though I have an academic background [PhD]. I have basically been connected to the business world all the time. I do not understand how one can avoid collaborating—one part gives the opportunity to the other part. If one can sell knowledge, it gives back to research. This is a really good opportunity for basic science. I do not always know how they [the critics] think.

She is ironically pointing to the perception that associating life science with applied research is something "horrible." According to her experiences, there is a kind of hierarchy between the basic and the applied sciences, with the former treated as more valuable than the latter. Her point, however, is that collaboration between the academic and business worlds is beneficial for everybody involved and for society as a whole. As I further ask about the consequences of the scientific hierarchical division, she says, "I would like to take this tension away, make it disappear. It is unproductive since it cultivates an A-team and a B-team." She clarifies that the B-team has to be understood as the scientists outside academia working with industry. Because these kinds of scientists are able to cross the boundaries between academia and industry, she mentions them using the German term—*Grenzgaenger*. In addition, she finishes the conversation by saying that commuting scientists like these will be seen as "the ambassadors of the future." She argues convincingly that these kinds of collaborative scientists will succeed in the long run, but today they are at a disadvantage. It should be added that though the figure of the entrepreneurial scientist (who can cross

borders) can be traced back to the 1970s in American culture (Shapin 2010: 209-267), it has not yet been totally established in the Scandinavian context.

The interview explicitly illustrates my own experiences as an ethnographer, such as the case when applied scientists, working within mediator companies, explained that they often had the feeling of not actual doing "basic research" in collaborative projects. Or, when academic scientists at various conferences and meetings occasionally rejected collaboration with the industry because it was not real "basic research." As an ethnographer, I quickly learned that there was a hierarchy between applied and basic science, and that the first mentioned knowledge production includes collaboration. As such, basic science (as a social meaning) always seemed to threaten to destabilize collaboration. However, what are the conditions in which collaboration becomes safe from destabilization—that is, legitimized.

# Legitimation

The point of this final section is to illustrate the conditions under which collaboration might become legitimized. The ethnographic event is concerned with the promotion of a recent collaborative interregional project. This case is intended to contribute to an understanding of how the phenomenon becomes legitimized, that is when collaboration has turned into an image of reproduction of welfare society.

## An interregional project

"Welcome," a happy Swedish policymaker says while shaking my hand. During the latter part of summer 2015, I was invited to the so-called pre-kick-off of the newly financed interregional project: ESS & MAX IV: Cross Border Science and Society. At the event, we found ourselves inside a tent dome, and I immediately recognize many people from the network. However, it was the first time that I encountered most members of the network gathered (or rather "assembled") in one and the same place (in Malmö, the third-largest city in Sweden). The atmosphere was positive: people were hugging and shaking hands, smiling, and chatting. The casually dressed, cheerful policymaker then steps onto the small black stage and says, "Finally! I am happy to announce that we have got the financing for our interregional collaborative project." The male moderator next to him asks, "What is your project about?" The policymaker answers, "As the project leader, I am happy to say that the purpose of the project is to develop the Öresund region for research, industry, and society as a whole."

What then followed was general information about the collaborative project and overall discussions that concerned the importance of the project in a globally competitive world. The project had a budget of 19 million euros and consisted of

a collaborative partnership between 27 actors. The project is portrayed as a strategic effort to maximize the benefit for the whole welfare society with the help of the research facilities ESS and MAX IV, a significant project in an uncertain contemporary historical period. The collaborative work will begin in 2015 and end in 2018, with a Swedish lead partner and project owner (Region Skåne) and Danish coordinating partner (Region Hovedstaden). Eight universities, ESS, MAX IV, marketing organizations, municipalities, and majorities constitute the other partnerships.

Taken together, the project is constituted by the notion of crossing borders between science and society, which follows the dualistic code as previously uncovered. Viewed in the light of Strathern's (2005b: 466-467) argument, the consequence of our contemporary imagined global competitive world is the internalization of science in society. In other words, the dualistic code seems to be increasingly useful and relevant in an age of uncertainty.

About one month later, I received an invitation for the official kick-off meeting for the project. Again, when I arrived, I recognized many people from the network. People are well dressed, and the reception is located in a well-known hotel in Malmö. Everything from breakfast to dinner is served to all. When everyone is seated, a manager of the Swedish regional development department announces that the keywords for the project are "usefulness" (which connotes making a profit from ESS and MAX IV by producing applied knowledge) and "collaboration." He proclaims:

> This project is going to generate growth, innovation, and development. It is about world-class research investments, which are going to have an enormous impact. It is, however, not about a solitary business—the research will make use of the environment. It is of great importance to take advantage of the opportunity and collaborate. We must set the agenda of the development strategy. We are going to make use of the benefits. It is about growth engines that need to be geared up! We need this kind of "job boost" because today we lack job opportunities. We all benefit when we collaborate.

His statement, I would like to argue, is pertinent to the collaborative project as a whole. What is striking, when listening to the manager, is the use of the Swedish metaphor tillväxtmotor—translating to "growth engine" (see Figure 2.1)


**Figure 2.1.** A presentation of ESS and MAX IV as growth engines in the Öresund region.

This metaphor seems to be circulating in the Öresund region (whether one finds oneself in Sweden or in Denmark) about most issues concerned with ESS and MAX IV. The metaphor can be traced to the Swedish regional council (Region Skåne). It is a political strategy to promote competence development, productivity, internationalization, and innovation within business organizations and the public sector. The regional policymakers thus want to attract investments, thereby strengthening capital and financing opportunities in order to reinforce the southern part of Sweden (Skåne) as a sustainable, innovative region. It is a conscious, collaborative strategy to create regional productivity in the labor market and a well-functioning welfare system.

The collaborative project gives expression to the reproduction of welfare society by establishing a regional growth engine. In the view of Godelier's (2011: 157) reasoning concerned with legitimization, the project is portrayed as being in service for the welfare state. The service in question (the establishment of the growth engine) appears as useful and significant for a welfare society as it undertakes the labor market, and thus guarantees conditions of social and economic reproduction. The foundation of reproduction is an imagined global competitive lifeworld that seems to threaten the regional conditions of reproduction.

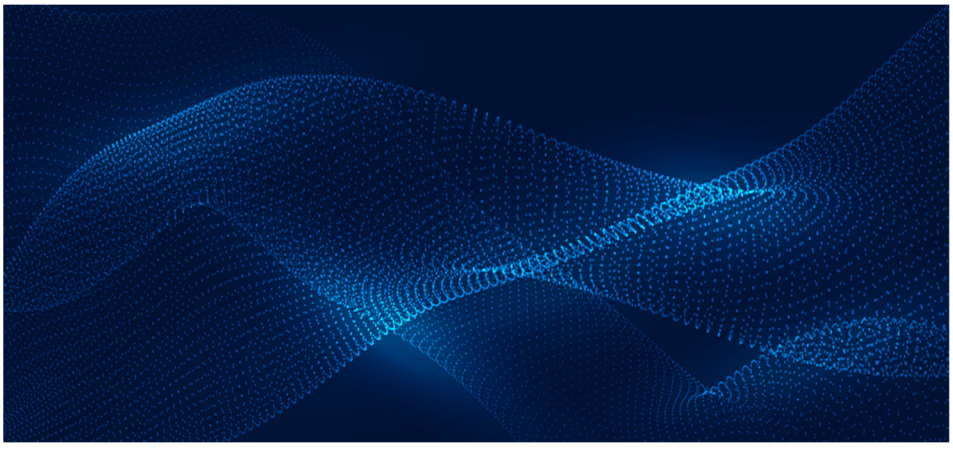
# A fusion of horizons

I have argued that collaboration, in the context of the knowledge economy, is to be considered as a lively organizational assembly in becoming, rather than an organic system. To make these claims, I have drawn upon my ethnographic research in the Öresund region for the sake of illustrating and proposing an interpretation of how collaboration operates in a life science network. I have described three processes with the help of various ethnographic illustrations.

The first ethnographic illustration showed how the dualistic reasoning (academia/industry) might be considered a pre-organizational code and that ethnographers may perceive the emergence of collaboration when this code becomes intensified in the right socio-political circumstances. The second ethnographic demonstration showed the (de)stabilization of collaboration. I began by showing how real existing mediator companies—that are working in between the university and the industrial world—may stabilize collaboration. Thereafter, I illuminated the destabilization of collaboration with the help of an interview in which it become possible to understand how the notion of basic science might destabilize collaboration. The third ethnographic exemplification displayed the legitimation of collaboration with the help of an interregional project that praised border crossing between science and society as useful and significant in an age of uncertainty. The project, as an expression of collaboration, became legitimized when it was portrayed as being in service for the welfare state.

The three heterogeneous processes might be comprehended as contemporary: collaboration is in becoming. Constantly, the identity of collaboration as a whole is challenged—as the three processes are not always working together, that is, in harmony with each other. What the hermeneutic-inspired ethnographer in an organization or in a network can learn from this heterogeneous case is to primarily strive toward an understanding of the overall phenomenon (here, collaboration as assemblage). It follows that the Others' apprehension of the same phenomenon (here, collaboration as an organism) becomes secondary in the sense that it functions as a contrast in the process of understanding. From the notion of the hermeneutic circle, the specific ethnographic practice is to discover how the parts (i.e., ethnographic data) relate to the whole (i.e., organizational phenomenon in a social context). Thus the description of the organizational phenomenon exceeds the ethnographer's, as well as the Others', horizons—the range of vision from a particular vantage point—which means that we are dealing with the production of a new form of understanding or interpretation. Gadamer (1997: 147-155; see also Agar 1986, 2013) mentions this productive form to be a fusion of horizons—an innovative understanding to be found in the middle, that is, between the ethnographer's social theory and the Others' common verbal, textual, and bodily expressions.

# 3 FLOW[14]



## A hybrid production space

This chapter is about the (re)making of the flow of knowledge in the hybrid production space between the public university domain and the private business world. I will examine the production of knowledge as it is (re)made in the laboratory by structural biologists who are employed in a mediator company. Ethnographically studying the flow of knowledge—how it is locally made, stopped and remade—will enable improved understanding of the process, which seems to be of great significance in the literature concerned with flow (see e.g., Hannerz 1992, Appadurai 1996, Rockefeller 2011, Urban 2016). The questions to be asked then are: How do we recognize flow? In what sense is flow being cut,

[14] This chapter is reproduced, with minor changes, from an article titled "The (Re)making of Flow: Mediator Companies and Knowledge Production" in (2017) *Journal of Business Anthropology* 2: 199–217.

and how do people deal with such cuts? What can we theoretically learn by studying the (re)making of the flow of knowledge in the laboratory?

In response to the questions above, Marilyn Strathern's (1996) remarkable and ambiguous problematization of hybridity makes a relevant theoretical point of departure for this chapter. She argues that modern thought and practice, which separate human and nonhuman, were challenged during the technological development in the 1980s and the 1990s in line with the emergence of network theories. It follows that many westerners today tolerate links between various heterogeneous objects and subjects—what one usually calls hybrids—as events of continuous flows. Strathern argues that "the very concept of the hybrid lends itself to endless narratives of (about, containing) mixture, including the constant splicing of cultural data in what a geneticist might call recombinant culturology" (Strathern 1996: 522). Her main theoretical concern, in this context, is the endlessness of flows (networks). Instead of taking endlessness for granted, she argues, we need to understand the possibilities of stopping flows—how networks are cut. In a rather complex manner Strathern finally comes to the conclusion that "the prospect of ownership cut into the network" (Strathern 1996: 524, see also Strathern 2004a: 51-67). It is ownership that put an end to the continuous flow within networks. The most obvious example of this "cutting", Strathern argues, is when scientists who are part of a research network (as they build upon previous knowledge production) patent the object of the network's study. Patenting means excluding previously involved scientists, thus cutting the research network. Simply put: "property disowns" (Strathern 1996: 531). Even though Strathern's article is a perceptive piece of theoretical work, the reader is not told what happens when it comes to the (re)making of the flow within hybrid-commercialized academic worlds.

In this chapter, then, I will ethnographically study the (re)making of the flow of knowledge with the help of a specific mediator company located in Sweden. Mediator companies offer an interesting empirical resource for thinking about (re)making the flow of knowledge in the sense that they work on a contract basis for industrial clients while at the same time utilizing the instruments of the academic world. The mediator companies seem to be a moderately thought-provoking expression of contemporary European innovation policy that pays tribute to the heterogenization of various objects and subjects. The mediator researchers are expected to become hybrids of new entrepreneurs and traditional researchers (cf. Etzkowitch 2005: 81, 85), working in an organization that is folded into a kind of "third space" (Edward 1996; Bhahba 1994). However, this kind of third organizational space is not to be seen as delimited by strict boundaries. As the ethnographic examples in this chapter will illustrate, the boundaries between the industrial worlds, the academic domains and mediator companies are occasionally blurred in everyday life, thereby constituting a noteworthy case of new production of knowledge.

The narrative of the chapter moves steadily through six points: 1) an ethnographical reflection about the phenomenon of flow of knowledge, 2) the mediator researchers and their hybrid companies, 3) the notion of the mediator researchers' possibilities to connect to the flow of knowledge in complex settings, 4) the making of the flow in the laboratory, 5) an integrated discussion between the cutting of the flow and mediator researchers' strategies of remaking the flow, and 6) the theoretical learning of the study of the flow.

# Methodological insights

Before describing the mediator companies' complex setting and the mediator researchers' hybrid positions, I will briefly state my access, performance, and strategy in the fieldwork—as a learning process when engaging with alterity in the world of science.

In my role as an ethnographer in 2014, I looked for an entrance to the field of Big Science[15] in the Öresund region. I chose to do ethnography in this region because my research project was concerned with the politics and organization of the construction of ESS and MAX IV in Lund, Sweden. Many regional policymakers in Sweden and Denmark see these two high-tech research facilities as "a regional growth engine" (*Regional tillväxtmotor*). It is not an exaggeration to claim that ESS and MAX IV are expressions of the new European innovation policy that honors collaboration between university researchers, industrial entrepreneurs, and government policymakers (Hallonsten 2012; Kaiserfeld and O'Dell 2013).

With this in mind, I contacted the policymakers on the Swedish side of Öresund and asked if it would be possible to interview them. They responded positively as they thought my research project was relevant to regional development. It soon became obvious that the policymakers working to promote ESS and MAX IV were quite busy with their daily work and were constantly participating in all sorts of network meetings. I asked if I could observe some of the network meetings, and I was given access to a broad and active network concerned with life science's future position in relation to the two research facilities. Once inside this network, I conducted participant observations in several meetings. Most of the participants of these network meetings were "important players", as one of my key informants expressed it. This meant that the participants, most often, had influential and powerful positions—in Sweden as well as in Denmark—which is not something ethnographers usually encounter (cf. Cefkin 2010).

It is within this kind of network that I first met the founder of a global mediator company, here called Bio-Sci. This mediator company had customers,

[15] See Steven Shapin's (2010: 165–173) reasoning on the organizational form and moral constitution of Big Science.

colleagues, and branches around the world. As indicated above, mediator companies link industries and universities, which is to be seen as their essential business model. I later ran into the founder of Bio-Sci at the yearly life science conference in Copenhagen. As I knew that an important foundation had given him and his colleague a commission to write a report about life science mediator companies' future role in relation to ESS and MAX IV, we began to discuss the issue (see Chapter 2). In this context, I asked him if it would be possible to conduct fieldwork at Bio-Sci. Most people within this field are open-minded, and he was no exception. We agreed that I would pitch my ideas and mail them to him. He told me, however, that it was "up to the mediator researchers to decide if it would possible". After some negotiations with one of the mediator researchers (Mia), I finally got an interview with her. Consequently, after a few more weeks I got access to the workplace of the mediator researchers—the office, laboratory, beam line and other places such as the refrigerator room. I did my fieldwork in Bio-Sci between 2014 and 2015, over a period of six months.

Because I had access to most of the mediator researchers' work areas, I had opportunities to learn about their likes, worries, problems, and solutions in relation to laboratory practices (cf. Traweek 1992). Occasionally, however, there were also some ethnographic obstacles—such as when there were big issues at stake. During these stressful periods the mediator researchers told me to "stay home". This was because the mediator researchers took me seriously; they wanted to take time and explain things in detail if necessary, which was simply not possible during the stressful periods at work. This was their way of respecting the ethnographic work. My point here is not to say that it would be ethnographically uninteresting to participate during these stressful periods. Rather, I am pointing to the social fact that I was respecting the mediators' wishes to be left alone. It is thus to be seen as an ethical issue rather than ethnographic one. When conducting fieldwork, I had excellent opportunities to ask all sorts of questions about the mediator researchers' work. Seeing me write in my notebook during discussions and observations did not make them uncomfortable because they did the same thing when doing their own research—the structural biologists, when working in the laboratory, were continuously writing down every step in their lab books.

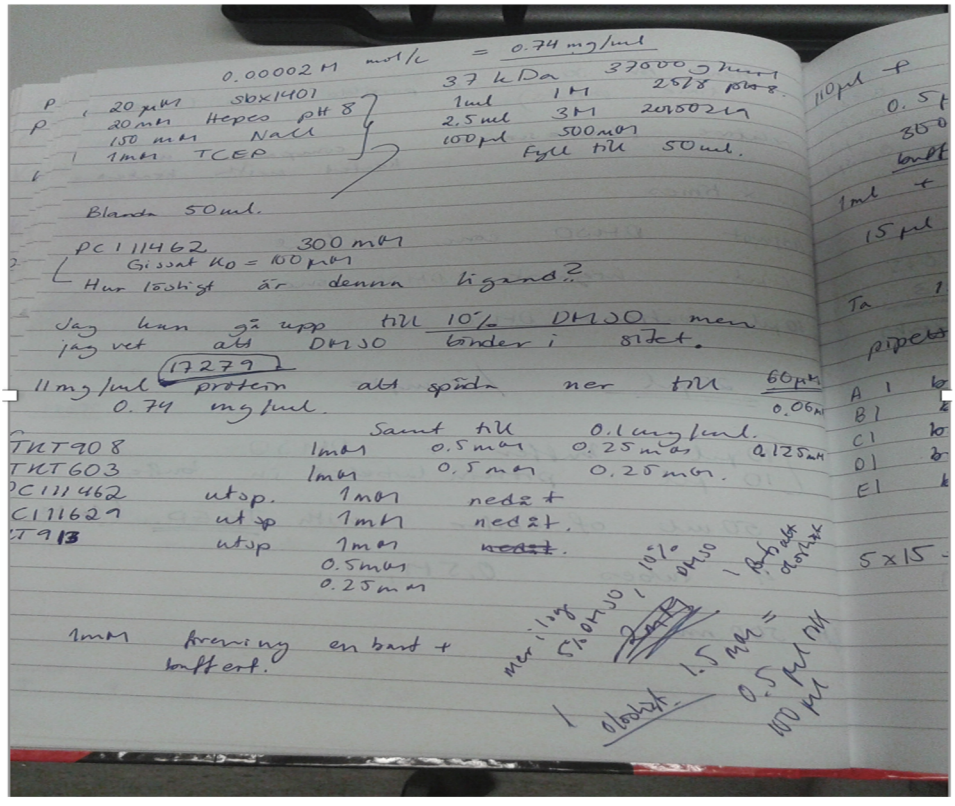


**Figure 3.1**. A page in a lab-book.

The fieldwork was, however, not easy for a social scientist who had been trained in a kind of socio-cultural language. The mediator researchers took me seriously as an ethnographer and in return they expected me to understand the structural biological language. To do so, I had to study textbooks of structural biology in order to get a hint of what they were talking about. As most anthropologists know, it takes a long time to learn a new language, no matter what it is. However, since I did not have enough time to learn the structural biological language fluently, I had to come up with a strategy to study ”science in action”, as expressed by Bruno Latour (1987).

The development of my strategy came out of the mediator researchers’ continuous movement and practices of connecting various apparatuses. By recalling Alfred Gell’s (2006: 29-75) close reading of Strahern’s peculiar anthropological project, I began thinking about how people were crafting semiotic systems. Might it be possible to make sense of the mediator researchers’ daily practices in the laboratory as a kind of semiotic system? Doing ethnography

in laboratories as an organizational field of specialized expertise always raises questions about what and how much to learn (Hine 2001). My strategy implied a shift, from focusing on what the structural biologists were saying to observing what they were doing—a shift of ethnographic gaze from mouth and language to hands and practices (Knorr Cetina 1999: 8-11). I began to work from the premise that materialities (apparatuses) were connected by various practices, which together constituted a semiotic system. Contemporary materialities and practices gave meaning in relation to what had previously been done in the semiotic system. Similar to how linguists study how signs and symbols become a significant part of meaningful communication, I was trying to make sense of how materiality (various apparatuses) and practices (such as pipetting) were made into a meaningful line of flow of knowledge. It soon became obvious that *if* the mediator researchers lacked knowledge of what had previously been done, or were hindered from constituting a meaning, they were most likely to confront ”a cut” in the semiotic system. As such, they somehow needed to remake the semiotic system. Crafting a semiotic system in this way, I argue, is about (re)making the flow of knowledge.

## Mediator researchers and companies

In order to provide for a contextual understanding in the discussion that follows, I will here describe the mediator researchers, that is, illustrate the mediator researchers' working conditions, discuss their disciplinary approach and explain those interests that surround their scientific results.

The researchers working within the mediator company I studied hold PhDs from different academic disciplines such as chemistry and biology. They are not from a homogeneous group of researchers, nor are they exclusively educated in Sweden. They come from all over the world, which means that the common language in the laboratory is English. Far from regarding this kind of heterogeneity as something problematic, the mediator researchers actually encourage a wide-ranging academic and cultural background as a sort of advantage that can be valuable, for example, when confronted with new challenges presented by customers. The researchers seem to be gathered upon the notion of collaboration within the company—acting as a ”trading zone” in the sense that they are exchanging various types of knowledge about instruments, theories and experiments (see Galison 1997). It follows that disciplinary or cultural historical belonging plays a minor role when they act as mediators between academia and industry.

As an ethnographer, one seldom hears about nostalgic memories from a previous time in life. With the main focus on the modernistic future, the mediator researchers told me that their current ”in-between position” is preferable to the

academic one. The reason for this is related to the social fact that they are not forced to think about strategic academic positioning, nor do they have to consciously engage in social hierarchic games as described in Pierre Bourdieu's *Homo Academicus* (1990). As such, it is possible to argue that mediator companies offer researchers (with PhDs) an alternative career opportunity—a third space where academic prestige and honor play a minor role in everyday life. However, this is not to say that mediator companies totally lack academic values. My point here is that academic values—honor and prestige—are to be seen as marginal compared to the delivery of a final product to customers. Because this is a hybridized space of non-commercial and commercial production, the values are still present but seem to play a different role. For example, when I was discussing various publication strategies and the writing of research articles, the mediator researchers underlined the dualistic fact that these practices are about marketing the company as well as doing what you are trained to do. As such, there are both *commercial* and *social* academic aspects to consider in this context (as will be discussed later, these aspects might have a tremendous influence on the (re)making flow of knowledge). I was further told that the research lines within mediator companies "are better than in the academic world" in the sense that the mediator researchers are able to avoid the increasing publication pressure. Simply put, these researchers publish when they want to, if they publish at all.[16]

What kind of research are the mediator researchers doing? When discussing the issue of commonality between the mediator researchers, they emphasized that their main common practices are to be understood as structural biology. In the broadest sense, it means that they are concerned with life as a reductive form—most often invisible to the human eye—as expressed in the following textbook quotation:

> We are surrounded by microbes, plants and animals that we can immediately recognize as living things. However, it is still difficult to provide a concise definition of what life is. Perhaps the most useful definition for the purpose of our book is that life is a unit capable of chemical activities, and which can reproduce and evolve. (Liljas et al. 2009: 4)

When studying life as chemical activities, the structural biologists (I followed) are doing crystallography, which is considered an experimental science. It consists of examining solid crystalline cells, understanding the law of expansion, external form, and inner (atomic) structure (Nationalencyklopedin 1995). As crystallography and its related technologies have lately become more

[16] Paul Rabinow (1996: 25–27) has drawn attention to the notion of patenting and publishing in relation to various scientific and commercial strategies.

sophisticated, contemporary crystallographers are able to study the chemical bonds that draw one atom to another. It follows that they can modify a structure and thereby change its properties and behavior. As a core structural science it produces, for example, persistent knowledge concerning the structure of DNA and creation of protein in cells. It means that these types of knowledge(s) might contribute to the design of new commodities:

> It permeates our daily lives and forms the backbone of industries which are increasingly reliant on knowledge generation to develop new products, in widely diverse fields that include agro-food, aeronautics, automobiles, cosmetics and computers as well as the electro-mechanical, pharmaceutical and mining industries. (UNESCO 2014)

It seems that there is increasing awareness when it comes to crystallography as an important science. The year 2014 was declared the International Year of Crystallography by the United Nations. UNESCO's home page, under the Science and Technology tab, states the following:

> Although crystallography underpins all of the sciences today, it remains relatively unknown to the general public. That is one of the reasons why the United Nations General Assembly (UNGA) proclaimed 2014 as the International Year of Crystallography (IYCr2014), and requested UNESCO to lead and coordinate, with the International Union of Crystallography (IUCr), the planning and implementation of educational and capacity-building activities during the Year. (UNESCO 2014)

The notion of crystallography as underpinning all sciences, in combination with the commercial fact that its knowledge production makes possible new products in various markets, has raised a great deal of interest among policymakers and stakeholders concerned with research.

# Connecting to new flows of knowledge in the complex setting

To (re)make the flow of knowledge, the mediator researchers first have to capture and connect to new flows of knowledge in the complex setting of the Öresund region. In concrete terms, it means that they need to look for customers who have an interest in developing their potential products within the hybridized production space of meditator companies. Here, I will argue that this complex setting needs

to be understood as an uncertain situation that might limit the possibilities for making new semiotic systems in the laboratory.

Within the Swedish context, where I mainly conducted fieldwork, policymakers and life science stakeholders perceive mediator companies as important future potential players in regional economic and social development. As previously noted, this mainly depends on the economic and political facts of the ongoing emergence and construction of two Big Science research facilities in the Öresund region: ESS and MAX IV. The mediator companies are intended to primarily occupy a position between the two main types of research facilities, industrial and academic. The mediator companies are important in the sense that policymakers and stakeholders treat them as a contemporary hybrid functional apparatus for industrial users (paying customers) and academic users (who pay the mediator researchers for material and time *if* they function as user support), as well as for potential future users (commercial and non- commercial) of the research facilities. Currently, one of the most urgent questions concerning ESS and MAX IV is about how to attract users. Consequently, there are several networks (academic as well as industrial) that have made it their duty to attract the industrial world to the two research facilities. In a contextual understanding, it is possible to see the mediator companies as self-evident apparatuses of the new regional innovation policy, based on hybridization of public and the private research.[17]

However, it should be noted that the socio-political field around ESS and MAX IV is complex, with a great many actors of various types. It seems that nobody really has a complete overview—the actors within this field might not always be aware of *who* is a potential enemy or friend, partner, or rival. It is a blurred hybridized field without any natural boundaries between the public and the private spheres. In other words, it is a complex reality that demands high socio-political skills and sensitivity. When I as an ethnographer occasionally asked for ”the man or woman with the blueprint”, people within the field would burst into laughter. The laughter seemed to indicate that it was an impossible task to grasp a holistic picture. Consequently, as the mediator researchers told me, ”suddenly we get competition from unforeseen directions”. They told me about a nation-wide state-owned company, here called, X, that increasingly sees its role as mediating between the industrial world and academic life science research. When I later spoke to representatives of the state-owned company X, I was told that they venture to ”help the private sector to apply for governmental research funding *through* academic researchers”. The state-owned company X aims to connect academics and business people—similar to what mediator companies are trying to do. This kind of unforeseen competition, however, creates a disturbance

[17] See Paul Rabinow’s (1996: 1–17) argument of conflicting values between applied and pure research concerning bioscience and innovations.

among the mediator researchers on a local level as it limits the possibilities to connect to new flows. In addition to this example, it is worth mentioning the rumor of the establishment of a molecular bio-scientific node in the southern region of Sweden—close to ESS and MAX IV. As a life science research director tried to establish a connection between the national research center located in Stockholm and the southern region, it was possible to listen to local responses from within the mediator companies. The reason for this local disturbance, again, depends on the social fact that "the node" is viewed as a competitor to the mediator companies' business model, not least since the national research center in Stockholm also wants to promote collaboration between industry and academia (see also Chapter 2).

These two threats—the state-owned company X and the molecular bio-scientific node—have led the mediator companies to launch an appeal, protesting that they are facing unjust competition since it is very difficult to compete with these government-funded mediators. A managing director of a mediator company made clear in written form that the competitive field is primarily to be understood in terms of *knowledge* rather than price.[18] For the mediator companies, the two threats are to be seen as a question of limiting the possibilities of connecting to new flows of knowledge. If other organizational forms are operating in similar hybridized spaces—between the public university and the private industry—they will, most likely, decrease the possibilities for the mediator companies to connect to new flows of knowledge in the complex setting.

## The making of flow of knowledge

One of the first things that struck me as an ethnographer in the laboratory was the movement of the researchers' hands in the course of producing new knowledge. When the hands suddenly stopped moving for a second or so, it was possible to understand their alignment with the researchers' heads. This micro-pause in the work routine, I would argue, shows the connection between the hand and the head. It reminds us that the process of making things well, as Richard Sennett remarked, is about craftsmanship:

[18] To protect the privacy of the community, I have decided not to use the document as a reference.

> Every good craftsman conducts a dialogue between concrete practices and thinking; this dialogue evolves into sustaining habits, and these habits establish a rhythm between problem solving and problem finding. (Sennett 2008: 9)

Since it is difficult for an ethnographer to explain what a good craftsman is thinking about, I will mainly focus on the actors' practices. This approach is also to be considered in connection to Ian Hacking's (1983) reasoning that we need to circumvent the notion that researchers are discovering phenomena—focusing on the theories in the minds of the researchers—by concentrating on how things are made and stabilized.

## In the laboratory

Wearing a white lab coat, Mia is setting up a rack with small yellow test tubes, from left to right, marking them with numbers from 1 to 22. Besides these 22 test tubes she is also preparing "a preference" in order to compare with the samples.

**Figure 3.2.** Mia working in the laboratory.

While everything is set, Mia controls the pipettes and then opens a transport cooler containing protein samples (liquid) in big test tubes, provided by the customer. Before transferring the liquid from the bigger to the smaller test tubes with the pipette, Mia checks her lab book, reviewing the notes describing what she did previously when working with this customer's project. It is important to note that the lab book is central when it comes to the structural biological practices since almost everything is written down in its pages. Almost every practice is documented to keep track of what was done previously (see Figure 3.1). When time allows, the mediator researchers share their written notes by

transferring them to an electronic version on the company's Intranet. Mia says that the mediator researchers constantly discuss how to work with customers' samples. This is related to the analytical fact that they are striving to be able to reproduce the research activity in the future. She says: "It will, however, never be exactly the same."[19]

Research results within biotechnology are quite difficult to reproduce due to variety of ways to calibrate instruments and construct experiments. In response to this problem of reproduction, a research survey report suggests the standardization of conceptual aspects and common electronic lab books (see Muthian 2014). A structural biologist, Mia underlines, must understand the importance of being able to document every activity and to understand the logical notion of systematization.

When Mia has calculated how much liquid ought to be transferred between the two sets of test tubes, she sets the pipettes to take up exactly the right amount. Shortly after she has filled the small yellow test tubes with liquid, Mia mixes red liquid into each one. Everything is done systematically and then documented in the lab book. It is a step-by-step activity. Then, from the rack, she pipettes to a 96 well PCR plate in reverse order. When I ask her why she has reversed the order, she explains that it has to do with the reading of the apparatus later on. While she finishes with the yellow test tubes, she places them, one by one, on a different row on the rack. Again, it is done to avoid mixing "finished with unfinished objects", she explains. When the PCR plate is complete, Mia covers the wells with a sealing mat to protect the liquid (protein) from light as well from other forms of liquid. Mia says, "It is very important to think about how you move things from one place to another. You need to find a system that suits you, which makes the work easier. It is important to focus on what you are doing in order to avoid becoming bored."

Having explained this, Mia stands up. I follow her to the centrifuge, in which she places the PCR plate. "It will spin one minute at 200 G," she says. From the centrifuge we move over to another apparatus, in which she places the PCR plate. Mia explains that this heating machine is connected to the computer standing next to it. The apparatus will heat up the protein samples and give her information about the melting curves. When we return to the machine after a while, she shows me S-curves on the computer screen. "It is a special software for calculating the melting curves," she explains. While, again, calculating and documenting in her lab book, Mia looks at the S-curves and decides where to measure them. She says that she is looking for the stabilizing values, and that some of the S-curves are to be incorporated into the final report to the customer. By trusting her aesthetic

[19] Steven Shapin (2010: 85) notes that: "In biology, and elsewhere in science, the search for the Truth about Nature has been taken over by a search for results that can be reliably manufactured in the laboratory."

gaze, she makes her point that one can represent the S-curves in various ways. This is no problem as long as she gives an account of her approach in the final report. It might even be better for the customer to see the S-curves from different perspectives. Mia says that she is guessing that the customer is interested in knowing the level at which the protein stabilizes. This is important knowledge if the customer plans to develop new medical drugs. She says, ”I do not really know what they are after, but I can make a qualified guess.” She later crafts a reference curve in the Excel program on the computer, while comparing various numbers and figures. When she is satisfied with the result, Mia copies the finished reference curve from Excel and pastes it into the report, explaining that the customer can now understand her interpretation of the S-curves as stable or unstable if they compare her arguments with the reference curve. She explains that it is important to look into the contract established with the customer in order to find out what is ”relevant information to include in the report”. She looks at me and says, ”Just like you, for me it is important to get the story straight. It is essential to tell a coherent story to the customers.” I ask her if she will personally hand over the report, face to face. Mia clarifies that the customers are too busy to meet in person, and that she will send the report by e-mail. This is how it is usually done; I am told.

The ethnographic description explains the making of the flow of knowledge in terms of craftsmanship in the laboratory. As described, the mediator researchers are building on what has previously been done with the object of study (here, protein)—there is, so to speak, always a kind of *heritage* from previous practices and various types of apparatus. With this in mind it is possible to argue that the mediator researchers are crafting a semiotic system as they connect various types of apparatus with the help of laboratory practices. For example, the pipetting (as a practice) connects the rack and the PCR plate (as material things) in a meaningful way. This is how the flow of knowledge is made and stabilized in the laboratory. Now, we will take a closer look at some problematic aspects that cut the flow of knowledge and the following remaking strategies.

## The cut and the remaking of flow

Following this discussion of the making, this part will examine the cut and the remaking of the flow of knowledge. I will argue that the cut in the third space—between business and academia—is constituted by a potential twoness, that is, commercialization (the process of introducing something into commerce) and socialization (the process of connecting to others).

## Commercialization and socialization

As former PhD students trained at various universities around the world, the mediator researchers have impressive global social networks. Some of their former colleagues or collaborative partners (whom they occasionally meet at international conferences concerned with structural biology) are now turning to the mediator company as paying customers. Belonging to three communities thus opens up continuous possibilities. However, it also comes with problems. One problem in this context is when business customers ask for analyses of their own protein samples. When a customer delivers ready-made protein samples in a transport cooler there is a predetermined ”cut” in the flow of knowledge. Since the organic object of study (protein) is made elsewhere and owned by somebody else (the customer), the mediator researchers will encounter problems. Because the object of study is a potential innovative business, the customer will be reluctant to disclose their future intentions or share information on how they grew the protein in their laboratory.

As has been explained, the flow of knowledge is to be understood in terms of a semiotic system, that is, the object of study only gets its meaning in relation to the knowledge of how it was previously related to various practices and apparatuses. When they receive protein samples from a customer, the mediator researchers somehow need to remake the flow of knowledge: they need to figure out *how* the customer treated the protein samples. As the mediator researchers explained, ”It is not always easy to figure out what has been done previously.” At times, I heard that they had received “cryptic data”. Most often they are able to make ”qualified guesses based on experience” with other researchers[20], but when there is inadequate information about the object of study, the mediator researchers need to contact the customer to request more information. Alternatively, they sometimes look for relevant information in research articles. This, however, is not unproblematic, as Mia explained:

> It can be tricky to reproduce published results such as crystallization condition since it is not described accurately enough in the papers, or it is simply not working the way it is described in the papers or it is simply not working the way it is described for some unknown reason. Also, it can be cumbersome to get access to all recent publications since only free-access journals are accessible to researchers outside the university (the price for each paper can be ridiculously high—a few hundred SEK for a Nature paper that I needed yesterday). Again, you can only get the papers by having connections inside the university (spouse, colleagues with double affiliations etc.).

[20] As Gregory Bateson (2000: 413) wrote: ”To guess, in essence, is to face a cut or slash in the sequence of items and to predict across that slash what items might be on the other side.”

Research publications might be helpful but accessing them will almost certainly be too expensive for the mediator companies (commercial problems that can be solved by social relations).

Because the customers most likely want to patent the product in the end, the mediator researchers sometimes receive ”vague information”. Despite these business-related social facts, the mediators somehow need to remake the flow in order to be able to deliver a conclusive product to the customer. The quality of the protein and the success at enabling the flow of knowledge production will affect how much the mediator company will get paid (if the two parties have not agreed otherwise in the contract). This is why it is important to socially figure out how the protein was previously treated by the customers. Meanwhile, this involves commercialized research with organic objects of study (such as proteins) and there is no objective guarantee of good results. The mediator researchers explained, ”It is always a question or discussion concerning *who* will carry the risks.” This explanation seems to take us back to crystallography as an experimental science—structural biologists as contemporary craftsmen are unable to know the outcome in advance.[21]

## Socialization and commercialization

Another problematic aspect to throw light on is related to situations wherein mediator researchers are using university-owned research facilities, instruments, or apparatus. Against the background of a complex local history, the mediator company Bio-Sci is located within the research facility. Without going into historical details about the emergence of the mediator company, my point is that the mediator researchers in this company are already socially entangled in academic research networks, even though they belong to the hybrid business world. I was told that ”one is *in* but not really” by the mediator researchers. This ”in but not really” third-space situation can be illustrated with reference to an occasion when cake was being served at the research facility. When I entered the canteen together with the mediator researchers that day, we saw that everybody there was eating cake. I asked the mediator researchers if they would have a piece of cake as dessert. They looked at me and explained that that would be inappropriate, since they were not actually employed by the research facility, even though they were working there *in situ*. I was informed about the difference between mediator companies as businesses and the others as academic members. As we were sitting in the canteen, however, an academic structural biologist

[21] It will, however, be noted that structural biology (according to the mediator researchers’ statements) has become more standardized in the last decades. But, as Kaushik Sunder Rajan (2006: 293) argues: ”Protein crystallization has always been one of the hardest things to do in biological research and is often considered more of an art than a precise science.”

(employed at the research facility) came over and invited us to have a piece of cake—and we gladly accepted.

My point here is to show the social complexity of the mediator company's position. The mediator researchers know most academic researchers connected to structural biology or crystallography: the academic researchers are often former colleagues or new researchers who share the same interests. The social boundaries are blurred. Some of the owners of the mediator company even have tenured posts at the university while running a commercial business on the side—which is not unusual within life science in general, as I understand it. It follows that people are socially obligated towards each other in various ways (kinship, favors, expectations etc.). Having been socially entangled in the past with the academic researchers (who belong to the research facility and thus to the local university) opens up various possibilities for the mediator researchers, such as being able to ask for advice concerning the latest technology or knowing about a certain research issue. It occasionally also creates problems for mediator researchers who pay money for the use of various instruments and pieces of apparatus belonging to the university. Even though they are really paying customers, the mediator researchers are, more or less, socially treated as colleagues within the research facility. In view of the social circumstances, the mediator researchers seldom receive the technical *service* they are supposed to get as paying customers. As an ethnographer, I witnessed and heard about many similar situations, about how service managers "had forgotten to prepare this or that."[22] In a more abstract sense, these social circumstances are about cutting the flow of knowledge. There are of course both advantages and disadvantages to being socially entangled when using the university's equipment, but my main point here concerns the problem that arises in making the flow of knowledge.

Largely (but not exclusively) because of this social problematic aspect, the mediator researchers have begun to use other European research facilities with synchrotron light that offer remote control, that is, beaming crystallized proteins from a distance. The mediator researchers are thus able to control the beam line from their local office at home while at the same time they get "first class technical support and service," I was informed. The mediator company sends their protein crystals via global delivery companies to other synchrotron facilities around Europe. At a time prearranged with the synchrotron facility, the mediator researchers gather around four computers with direct contact to service technicians and a robot that places the crystallized proteins in place for beaming. When I witnessed such an occasion, I became aware of the good and efficient service they received as paying customers.

[22] I was told that the problem of lack of good service is related to the fact that many service managers are busy with their own academic careers, that is, with their own research projects as they strive to secure a tenured position within academia.

In sum, the cut is constituted by a potential twoness: commercialization and socialization. Observed from the position of the cut, the remaking strategy is reversed. The commercialized cut of the flow (for example, when somebody else owns the object of study) is remade with the help of various social strategies, such as collective qualified guesses or by contacting the customer/owner. The socialized cut of the flow (for example, when friends or colleagues do not regard the mediator researchers as serious customers and thus refuse or forget to give them good service) is remade with the help of various commercialized strategies, such as the case when paying another research facility to help them with the job of making knowledge flow.

# A theoretical invitation

The chapter took its theoretical departure from Strathern's reasoning of possibilities of cutting flow. Although I stressed that she highlights new and interesting questions, it seems that Strathern's approach needs to be developed when it comes to understanding and explaining the (re)making of flow. In this manner, I argued that mediator companies and mediator researchers—located in a third space—seem to be an interesting empirical resource for developing the notion of the (re)making of flow. In the following, I will first summarize the chapter's main points and then attempt to extend Strathern's theoretical approach.

The first point concerned how to ethnographically grasp the abstraction of the (re)making of flow of knowledge. I thus suggested that ethnographers could focus on the abstraction of flow as a way of crafting a semiotic system. The second point was based on the notion of giving the reader a general overview of the mediator researchers, their working conditions, disciplinary approach, and some of the commercial interest of their scientific results—as an indication of the hybridity of commerce and sociality. Subsequently, the third point was about the complex setting in which the mediator companies try to connect to the new flows of knowledge—a way of arguing that their position in the third space is favorable, unique but problematic as it reveals new unforeseen competitors, that is, hybrid activities of public and private research domains. To understand the flow of knowledge, the fourth point described the everyday practices within the mediator company, Bio-Sci. The main point in this context was the process of crafting a semiotic system—understanding how various apparatuses were connected by different laboratory practices in a meaningful way. The function of this laboratory case was to illustrate the making of flow without any cuts. The fifth point took into consideration the cutting of the flow and mediator researchers' strategies of remaking the flow. This part illustrated that the cut in the hybridized third space is constituted by a potential twoness: commercialization and socialization.

So, how can Strathern's theoretical approach be extended, based on the ethnographic case of the third, hybridized production space? To answer this question, one possibility is to reconnect to Strathern's reasoning of the constitution of the cut (as presented in the introduction). According to Strathern, who mainly utilizes western, commercial types of concepts, such as ownership, property, and patenting, it seems that her main reasoning is concerned with some kind of commercial oneness. As Strathern's analysis is not crystal clear, I would like to interpret it and suggest that her reasoning, concerning the constitution of the cut, is about a commercialized oneness—such as the case when she is arguing that the cut is about ownership. If we take this abstract logic as true, then it is possible to argue that the constitution of the cut, in the third production space, is different in the sense that we are here dealing with a potential kind of twoness. As was noted in the ethnographic descriptions, the cut of the flow is constituted by the potentiality of 1) commercialization (ownership) *and* 2) socialization (friendship/collegiality). This kind of potential twoness could further be understood as having reversed remaking strategies. On the one hand, too much socialization (friendship/collegiality) produces various commercialized strategies, such as the case of remote controlling the beaming of crystallized protein. On the other hand, too much commercialization (ownership) creates social strategies, such as the circumstances concerned with qualified guessing among the mediator researchers, or when contacting the customers to request more information.

With the state of being two, I finally would like to claim, ethnographers in hybrid commercialized worlds might need to become alert about what kind of cuts and remaking strategies they are encountering in the field (cf. Pedersen 2012: 203). In a Strathernian sense (see 2006: 200), I hope that other ethnographers will receive this theoretical extension as an invitation rather than as an instruction—an opening for further problems rather than conclusive solutions.

# 4 CONTRADICTION[23]

## Encountering contradictions

In 2015, Danish and Swedish academic researchers, industrial entrepreneurs, and regional policymakers arranged a final conference at Lund University, Sweden, for the closure of their prosperous collaborative project. The project in question

[23] This chapter is based on a paper presented at a conference in Auckland and Copenhagen, 2015.

was reputedly successful in the sense that it was able to merge various interests—basic science, economic profit, and welfare development—in the construction a highly technological machine. The representatives of the three various institutions—the university, the industry, and the state—gathered on the stage and shared with the audience their common views of the overall collaborative project. Initially, a policymaker declared, "The researchers have been autonomous in the work process even though we policymakers gave them guidelines on how to collaborate with the industries." Some of the participants nodded their heads in affirmation, disregarding the etymological fact that *autonomy* essentially means self-governance or freedom from external control or influence. As the conversation continued, an entrepreneur stated, "there is actually no explicit difference between basic research and applied research within the framework of this project." Again, no public reactions; no one pointed out the contradictory nature of the statement. Accordingly, the representatives of the various institutions seemed to agree about the importance of "crossing cultural boundaries" between the university and the industry in terms of future collaborative arrangements. Moreover, the discussion among the representatives indicated that policymaking activities were not about politics; instead, they were about developing the welfare society. In the aforementioned situation, there were no public questions or replies and no reactions to the contradictory notion that regional policymaking, concerned with welfare issues, is *not* related to (social) political practices.

The vignette is ethnographically captivating in that it provides the observer with a window of opportunity to perceive the transient phenomenon of *contradictions* as it presents itself in the innovation political world (as later to be discussed). Further, the contradictions seem to be provocative (at least for the ethnographer) as they do not follow modern logic with predictable dichotomies between specific concepts and institutions. Some prominent researchers (see, e.g., Akrich et al. 2002a, 2002b; Callon et al. 2011) promote such innovation-political contradictions as creative expressions of lateral thinking, which implies an obeisance of the effects on the world rather than the representation of the same ecosphere. This form of innovation-political creativity seems to strive beyond the thinking of binary representations—such as political economy versus science and basic versus applied research—by attempting to hybridize both conceptual and material "things" (cf. Etzkowitz 2008). However, the question is, how do we think about such a way of thinking? What type of creative thinking are we referring to in the innovation political world, and would it be productive to utilize such thinking in an ethnography of innovation politics? In addition, how does such thinking express itself within interpersonal relationships?

The purpose of this chapter is twofold: (1) to theoretically explain and socially disclose the thinking of innovation politics and (2) to present a methodological experiment with the same kind of thinking. This form of commitment follows

post-representative anthropology, which encourages ethnographers to use the Other's logical relations to understand and explain ethnographic phenomena in the everyday lifeworld. From such a research approach (see, e.g., Holbraad 2012; Holbraad and Pedersen 2017), making connections under which something new arises, the ethnographer attempts to affirm rather than negate the socio-cultural expressions of the Other.

## Connecting lateral thinking with politics and ethnography

In 1970, Edward De Bono published *Lateral Thinking: Creativity Step by Step*, in which he stated that the primary method of human knowledge is through conflicting ideas, contradictions, or negations between new information and old ideas. A Marxist philosopher would most likely treat such struggles of opposites as fundamental dialectical materialistic processes in nature and society (Tse-tung 1937). However, De Bono considered these processes as a kind of provocative creativity. For De Bono, creativity could be understood as *lateral thinking*, that is, the generation of new ideas. Lateral thinking is about a different way of looking at things that have always been gazed at in the same manner. Lateral thinking is different from vertical thinking, the latter recognized as the Western thinking (i.e., congruent with the type of thinking in logic and mathematics). In vertical thinking, the person moves forward in sequential steps that must be logically justified. In stark contrast, lateral thinking does not treat information as data but as a mean to create effects. Hence, the lateral thinker might be perceived as wrong or contradictory in some steps when achieving an exciting and creative solution, which would be an impossible and provocative achievement for the vertical thinker (De Bono 1970: 40). As the vertical thinker is logically concerned with proving a conceptual pattern, the lateral thinker is busy restructuring such a design and provoking new ones. However, De Bono underlines the importance of both. Skills in both vertical and lateral thinking are necessary and beneficial in developing a productive society. His point is that Western institutions ought to take notice of lateral thinking since the educational field exclusively focuses on vertical thinking.

The primary purpose of lateral thinking is to strive beyond the limitations of our everyday thinking. De Bono also makes visible some useful cognitive tools for restructuring common sense in the everyday lifeworld. Noteworthy in De Bono's toolbox is the cognitive tool of fractioning, from Latin *frangere*, meaning "to break." Fractioning could be used to create tiny parts or proportions of wholeness such as "natural" conceptual relations (A-B-C) or a holistic image of a kind. With the help of such a creative cognitive tool, the lateral thinker could initially break apart common-sense patterns to later rebuild the parts to a new

contradictory design, a method reminiscent of Lévi-Strauss' (1987: 33) notion of the *bricoleur*. Therefore, it would be relevant to consider the innovation political world as an attitude constituted by lateral thinking, especially as contradictions and creativity seem to be the common denominator.

As the introductory vignette illustrates, I noticed early on during the fieldwork that innovation policymakers, policy-linked researchers, and entrepreneurs repeatedly contradicted themselves in public events. Such contradictory statements and argumentation thus provoked my ethnographic reasoning since they seemed to lack logical reasoning. After several writing attempts, I finally came to the insight that their contradictory expressions could be comprehended in terms of lateral thinking (De Bono 1970). The connection between the lateral form of thinking and the innovation political world might not come as a surprise due to the socio-political fact that the latter is constituted by the notion of creativity (see Amabile 1988; Wilf 2019, 2020). Creativity is essential to the creation of newness and innovations; it is visible when the policymakers, policy-linked researchers, and entrepreneurs attempt to hybridize various modern "objects" (the university world, the business world, and the policymaking world of the state) and "subjects" (publicly employed researchers, privately employed entrepreneurs, and engaged public policymakers) (Etzkowitz 2004, 2008). As I traced the policymakers' contradictory notions to the underlying Triple Helix policy model (see Chapter 1 and 2), I discerned that the three "helixes" merely attempted to be creative in order to provoke some effects in the everyday lifeworld. Their main goal was to crossbreed the most unlikely things with the hope that it would contribute to future "innovations." In turn, the innovations were meant to stimulate regional social and economic growth and become the new investment for a contemporary welfare society. In contrast to the notion of a centralized model (in which the state controls the university world and industrial worlds) and the laissez-faire model (in which the university, the state, and the industry collaborate to a certain extent across explicit boundaries), the Triple Helix model undertakes hybrid and collaborative relations between the three worlds. The Triple Helix model used by the policymakers to generate creativity and, thus, innovations, indicates a type of "forwarded-thinking" (Etzkowitz 2004, 2008).

When interviewing policymakers about the role of social science and humanities in the context of innovation politics, I was told that academic disciplines ought to focus more toward the future than the past (that is, in terms of the dichotomy, proactive versus retroactive; more about this later). Such an argument corresponds well with De Bono's lateral thinking that backward thinking is "more concerned with explaining an effect whereas forward-thinking is more concerned with bringing about an effect" (1970, 105). In the context of innovation politics, the overall point is to bring about real effects on contemporary, uncertain societies, especially since the future is imagined as an

open and uncertain horizon (Nowotny 2008, 2016). This form of uncertainty is the underlying structure for the increasing ambition towards innovations. With an increasing number of innovations, many innovation policymakers and politicians believe that they can better control and predict the future—they consider innovations to be the best way to transform uncertainties into certainties (Godin 2015, 2017; Godin and Vinck 2017).

On closer inspection, however, the innovation political world with its lateral thinking is not completely separate from the ethnographic world (Strathern 1999: 24; Maurer 2005; Helmreich 2009: 22). Following the ethnographic fact that contradictory phenomena were transient in the field, I had some difficulties capturing enough material to make my point in writing. As I came across contradictions especially relevant for the context of innovation politics, I kept struggling with the methodological problem of how to best approach the phenomenon. Thus I explored the possibilities to utilize the lateral thinking of the policymakers, policy-linked researchers, and entrepreneurs—mainly the tool of fractioning—for an ethnographic approach. After all, lateral thinking is all about the liberal notion of generating newness, usually in contrast to the taken-for-granted naturalistic attitude of vertical thinking, the latter also prevalent in the ethnographic world (Agar 2004, 2013).

Beginning from the notion of creativity in lateral thinking, I explicitly performed two fractioning "breaks." The first break carefully attempted to fraction the notion of holistic fieldwork into local interactive interviews with policymakers, entrepreneurs, and policy-linked researchers. The main inspiration for this strategy is De Bono's metaphorical statement, "Vertical thinking is used to dig the same hole deeper. Lateral thinking is used to dig a hole in a different place" (1970: 13). In other words, the interactive interviews became my way "to dig a new hole." The second break was an attempt to disrupt the informants' statements against new provocative ideas during the interviews. I performed this form of fractioning in the hope of evoking the transient phenomenon of contradiction. Importantly, I first discovered the phenomenon of contradiction during fieldwork, so the format of the interviews did not, in any way, evoke the phenomenon for the first time. In other words, the phenomenon already existed in the innovation political world, and it was then followed up in experimental interactive interviews.[24] This form of affirmative recursive strategy (cf. Holbraad

[24] Earlier versions of this chapter underwent criticism by ethnographic-oriented researchers, who were provoked by the interactive interviews. This criticism consists of two points. First, they argued that one could not equate holistic fieldwork with local interactive interviews (especially as the "separate methods" are imagined standing in logical contradiction to each other in the understanding of a phenomenon). Second, they claimed that the interviews were deeply unethical since I appear as provocative in the dialogues (this statement seems to be constituted by a moral contradiction between "an inactive ethnographic form of listening and learning" and "an interactive ethnographic

2012) places the content of *lateral thinking with innovation politics* and the form of *lateral thinking with ethnography* side by side.

# Three interviews

I conducted three experimental, interactive interviews. The first interviewee was Jonas from the Swedish regional council of Scania (Region Skåne). In his role as a regional representative of the state, he promotes collaboration between the state, industry, and academia in his daily work. Jonas strongly believes in the Triple Helix as an organizational model for the future operation of ESS and MAX IV. According to him, it is with the help of cross-border partnership and collaboration will help create more and better future innovation. The second interviewee was Evan, a senior professor of materials science who works at a public university. Evan has an extensive history of conducting research in cooperation with the industrial world and has recently established a more explicit collaboration with Region Skåne due to the construction of ESS and MAX IV. The third interviewee was Lennart, the director of a hybrid company funded by both public and private funds. He has previously worked with research development in the business world, which means that he regards collaboration between industry and academia as favorably productive. Like Evan, Lennart is currently in constant dialogue with Region Skåne to find new innovative possibilities.

## A regional representative of the state

When discussing the Triple Helix relationship between universities and industries in the ESS and MAX IV context, Jonas (the Swedish regional representative of the state) emphasizes the importance of industrial doctoral students. When comparing Sweden and Denmark, he envisions a Danish business whose employees had previously been employed in both academia (fifty percent) and industry (fifty percent). "This mix," he says, "is really good for business because they will get the latest knowledge." He adds, "We need to get more researchers into the business world, and more researchers from business into the university world." However, this kind of collaborative exchange of knowledge needs to be anchored by the Deans of contemporary universities. Jonas' main point is that people in managerial positions in universities need "a holistic perspective," which means that they ought to reflect on their part in regional development. Jonas further argues that it might be a good time for the Swedish government "to realize that we need to produce an increasing number of industrial doctoral students."

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form of arguing and learning"). With this in mind, their criticism corresponds well with my use of the "fractioning" tool in the lateral thinking (see De Bono 1970: 131–140).

I further ask him what would be deemed "critical research" *if* politics and capital are able to control research in this mixed and applied way. In a more serious tone of voice, Jonas tells me that one needs basic research—namely, "research for the sake of research." Jonas continues to explain that "we citizens do not know what knowledge we might need tomorrow." Jonas then refers to the ongoing European discussion concerning "research excellence" and makes his point by arguing that there are plenty of financial resources for basic research. "We must focus on excellence in all research areas. This is no contradiction!" Jonas argues. He moves his body into a new position, as he seems somewhat uncomfortable, and further stresses that the social sciences and humanities are peripheral disciplines because they usually "lack traditions of applied approaches." His argumentation builds on his previous experience organizing a seminar in Brussels on the social sciences and humanities, in which he addressed what he calls the "SSH perspective" in relation to the Horizon 2020 program.[25]


**Figure 4.1.** Horizon2020.

[25] See http://ec.europa.eu/programmes/horizon2020/en/what-horizon-2020: "Horizon 2020 is the biggest EU Research and Innovation program ever with nearly €80 billions of funding available over seven years (2014 to 2020)—in addition to the private investment that this money will attract. It promises more breakthroughs, discoveries, and world-firsts by taking great ideas from the lab to the market."

In this context, Jonas says that "it seems to be a good idea to bring in behavioral science when it comes to consumer behavior in the food business" or when "developing and designing mobile phones with technicians." Jonas stresses the importance of making use of research, that is, the commercialization of knowledge for the development of customer-friendly products (cf. Gibbons et. al. 1994). Such knowledge is to be implemented in the overall public system. Jonas calls this "mixed knowledge":

> We need to introduce SSH perspectives on everything. I don't think that SSH researchers really understand this [laughing]. Not to be critical, but they ought to make a better effort to find their role in society. There are many examples of success.

When I ask him whether his claim that social scientists and humanists ought to find their applied and commercial role in society stands in contradiction to radical critical research and knowledge production, Jonas moves sideways, shifting his position in the chair. Jonas thinks about the question for a few seconds and then brings up a recent seminar with SSH researchers that he attended. He stresses that the researchers themselves admitted that their research and knowledge production was usually "retro-active," meaning that they analyze and critique what has gone wrong. In temporal terms, Jonas claims that the people in the seminar agreed to work with a model that was more "proactive, as a way to participate early on in the process." Contrary to a retroactive role, "the SSH researchers need to become active participants in the process in order to make it better," argues Jonas (cf. De Bono 1970: 105).

Jonas then expresses his displeasure with the political strategies of Swedish universities. He emphasizes that Swedish universities should make use of their political scientists to better understand European research policies. Political scientists are trained to understand underlying political driving forces and should be able to attract economic resources from programs such as Horizon 2020. After a few seconds, I respond by saying that it sounds as if everybody and everything should be included in regional development. Jonas becomes silent and shakes his head a little, indicating both yes and no at the same time, and seems rather uncomfortable with my brief summary. I then ask if the Triple Helix model, as part of Horizon 2020, is in itself about politics. Jonas moves his body suddenly and says,

> I don't think that Triple Helix is basically about politics. If there is political change after the election this year, I don't think it will make a difference. Well, then again, there are some questions concerning collaboration, openness, and globalization. There is a range [of positions] among the parties about how open one should be

> toward the rest of the world. The liberal ideas of collaboration and innovation … I don't know … I get the feeling that if one is liberal, it is easier to embrace such ideas. If one is conservative or a left protectionist, that might lead to more reflection about the political issues. With that, I can tell you that I am a liberal.

In this interview conversation, we could recognize the contradictions that follow the notion of lateral thinking not only in Jonas's notion of the political institution but also in his perception of knowledge. Furthermore, these verbal contradictions can be understood in relation to his body language, which sends a message of uncomfortableness with the subject.

## A representative of the university

During the interview with Evan, a professor of materials science, about the function of the Triple Helix model and its relationship to ESS and MAX IV, he stresses the importance of creating value. He explains that Swedish taxpayers expect to get something in return from research communities: "The taxpayers imagine that the system must create value." Evan believes that researchers who receive public funding from taxpayers should increase the economic wealth of society. He further stressed that this kind of value creation "is the right way to understand the university system and research facilities such as ESS." By means of research, we will be able to create new tax revenue for future society. In this context, we begin to discuss "the entrepreneurial university" (see Etzkowitz 2004; Foss and Gibson 2017), and Evan agrees with the notion that it is about creating economic value from knowledge. He stresses that this is regarded as, more or less, common sense at the institute of technology where he is employed. If research results or students (i.e., engineers) could not be used, it would be "a total failure" according to Evan.

When I point out the difference between the techno-economic values of engineering and the democratic values of the humanities, he seems somewhat annoyed, pursing his lips. In a more serious tone of voice, he says that he sees my point but that "it is not democratic to consume tax money without giving back to society" (cf. Nowotny et al. 2001). Evan further emphasizes that he understands the educational value of culture and history but not in relation to the production processes within technology institutes. However, there is an exception when it comes to what he calls "curiosity science," which refers to the notion of basic research. While "seventy-five percent of our own department is about applied science," he maintains "the importance of keeping twenty-five percent based on curiosity." This means that material scientists are sometimes looking for solutions without knowing the problems. Evan explains, "One creates a solution and then tries to figure out what problem the solution will fit—one finds solutions before problems." When I ask if this statement does not contradict his previous

statements about economic value creation and taxpayers' expectations, he simply sniggers.

The discussion then returns to the entrepreneurial university as understood in the Triple Helix model. I ask whether the institutes of technology should be free of the state and the market. Evan responds that they already are: "We are free to do the kind of research that we want, without getting into trouble. It is a free university!" However, in the next sentence, he announces that "we are today of course more economically trapped. … We can be compared with academic consultants because of the increase in dedicated European and Swedish innovation research funding." When I question how a university can be both totally free and economically trapped at the same time, Evan sniggers again. He hesitates for a moment, and then he informs me that contemporary universities are more oriented toward "specific collaborative partners in the business world." According to Evan, much research funding today is based on the notion of fifty percent tax money and fifty percent private money, which is a "good" distribution. With this in mind, Evan then contends that "it is difficult to stay autonomous in this kind of applied research." Consequently, using the university logo to promote a specific trademark is problematic:

> To say that VOLVO trucks are better than SCANIA trucks would be damaging to a public authority [i.e., the university]. Concerning objectivity … one could probably be very biased without being involved in research fraud or the like.

With this statement, Evan tries to make a point about the struggle and similarities between applied and basic research. He says that "basic research is also based on some kind of interest," namely, the researcher's personal interest in the objects of research. To be guided by personal interest as a researcher is not ideal because it is seldom in the taxpayer's interest, argues Evan. He seems to be uncomfortable with the situation and sniggers again. He then maintains the importance of collaboration between research and the citizens of Sweden and Denmark via the integration of sciences and societies (Nowotny et al. 2001).

In orchestra with the logic of lateral thinking, the verbal contradictions seem to be most obvious in the discussion concerning the relationship of universities with the state and the market (i.e., the industry). I argue this contradiction could be viewed in relation to the physical expression of sniggering.

## A representative of the industry

In our discussion of ESS/MAX IV and organizational issues, Lennart immediately refers to the Triple Helix as "the EU innovation model." Hence, we soon get into a discussion about the university and researchers as entrepreneurial objects and subjects. Lennart informs me that this is generally a good idea:

"Creating latitude for collaboration between industry and universities—it is a good thing for both parties." Lennart explains that there are many interesting problems in the industrial world that might be "attractive research objects for universities." Lennart emphasizes that new research results from universities might also be interesting for industry. He says, "It is valuable to find each other within a specific context, as has been promoted by Region Skåne in line with their application of Triple Helix." When I request further elaboration, Lennart explains that the Triple Helix model was highly useful when lobbying for political and economic support: It was with the help of this model, as applied in Region Skåne, that Lennart's company became established in the region.

Lennart further makes his point by saying that it is important for businesses to support systems of innovation by procuring things not yet available in contemporary markets. I ask him to exemplify, and he answers, "Surgery at a distance." If a surgeon is posted in northern Sweden, "He or she can be useful in the southern part of the country *if* online." With the help of mobile phones and the internet, it becomes possible to operate at a distance if connections are made to a local robot. Evan makes a case by saying, "If this is a good idea, then the representatives of the state can order it today and get it delivered two years later." I then ask if the state is to act as a venture capitalist (the question is constructed from Etzkowitz's [2008] notion of the Triple Helix model). My question upsets Lennart a great deal. He raises his hand, indicating that I should listen carefully:

> You can call it what you want, but it is called the procurement of innovations! It is about public support for innovative ideas. It is quite common in the US. DARPA [Defense Advanced Research Projects Agency] deals a lot with this kind of support. Many of the research projects carried out in the US are funded by DARPA. There, it is not bad. Here, it is not quite the same. Like you say, "Then one is a venture capitalist!" "This is not something one can do with tax money, ohhh, my God!"

Lennart asserts that importance lies in initiating innovations in society with the help of collaboration. As I have previously done with the other potential policymakers, I ask him whether this kind of system only promotes applied research. His first answer is "no." Lennart clarifies that "basic research is a necessity," especially because "basic research usually yields unexpected utilities." Then he emphasizes, "I do not see any contradiction between applied research and basic research. This kind of division is unfortunate in its own way." While straightening his body in the chair, he claims that there is no explicit distinction between applied and basic research. I understand this to indicate that Lennart is truly pleased with his argumentation.

Our discussion gradually moves on to the relationship between the Triple Helix model and politics. Lennart says that he never thought about the model in political terms, but when reflecting on the issue today, he realizes that "innovation politics is close to the fundamental idea of liberalism." However, this is not something that one should stress, as it might ruin innovation policy projects:

> If one loaded it [i.e., innovation politics] with political ideology, then it would stop. Let us say that it is a liberal idea and that the Liberals and the Conservatives support it, then when the Social Democrats and the Green Party gain political power, it will be over. This would be incredibly sad. Then it is simply about a certain kind of political agenda. I really hope this will not be the case! It must be some benefit to collaborate rather than simply treating it as a political opinion. I think that is absolutely preposterous. If you connect politics with innovation, then you are in trouble.

Lennart concludes that the Triple Helix model is "not political" (cf. Valaskivi 2012). When I ask Lennart if it is a contradiction to say that the Triple Helix model is more inclined to liberalism and then to say that it is not political, he just says "no" and crosses his arms.

Lennart's verbally contradictory expressions, in line with lateral thinking, foremost touch upon research and the political institutions. I also stress that his expressions ought to be considered in conjunction with his physical movements, as they change from expressing defensiveness to indicating self-assurance.

## Contradictions, ethnography, and post-representativeness

Contradictions and inconsistency, as ethnographic phenomena, have unceasingly troubled anthropologists as they searched for significant interpretations of "the exotic Other." For example, Ernest Gellner (1970) has stressed that anthropology is particularly concerned with concepts and how to interpret the participants' relational meaning of concepts in a social context. By drawing upon the history of modern anthropology, Gellner shows the discipline's struggle to understand phenomena such as contradictions, by negating them in terms of "social absurdity." More recently, in a special issue of *Journal of Ethnographic Theory*, Berliner et al. (2016; see also Jovanovic´ 2016) have initiated a debate, titled "Anthropology and the Study of Contradictions," that includes phenomenologically inspired issues on how different ethnographers can get access to contradictory phenomena during fieldwork. Overall, all authors seem to agree that the human condition is somehow always contradictory. Human beings

are (un)conscious and (non-)reflective of contradictions in their natural attitude. However, the methodological question that follows such a conclusion is how to disclose and re-discover such phenomena. Where are contradictions to be found in social and cultural processes? The question pushes ethnographers to think more deeply about how to observe a person over time, in various situations, and then try to figure out how to set up interviews and how to analyze and portray the material.

Following such a phenomenological-ethnographic approach with experimental, interactive interviews, I argue that an anthropological analysis should avoid departing from rational, vertical thinking in which the act of judgment automatically considers the Other's thinking as negative. By circumventing the negativity, the Other's contradictory statements and acts will no longer be considered as absurd or wrong but a fulfillment towards a certain meaning. Consequently, it becomes possible to *understand* the informants as merely being creative rather than expressing irrational beliefs about their everyday lifeworld. My argument could be seen as a prolongation of the "representation crisis" in the mid-1980s (Clifford and Marcus 2010 [1986]; see also Marcus and Fischer 1986; Geertz 1988) in which the colonial heritage of judging and negating the Other's socio-cultural expressions (such as "that is simply an irrational belief") was made explicitly transparent. The strive towards transparency is also expressive of a self-reflexive and conceptual experimental research line, which lately has been extended by ethnographers who looked for a post-representative space (see, e.g., Henare et al. 2007; Holbraad and Pedersen 2017).

One distinctive expression of the post-representativeness is Martin Holbraad's (2012) book *Truth in Motion: The Recursive Anthropology of Cuban Divination*, which is an overall attempt to free anthropologists of the colonial angst that was generated in the wake of the "crisis." The book begins with the statement that,

> anthropology's attempt to make sense of other people must in some sense or other take the form of providing appropriate representations (descriptions, interpretations, explanations, and so on). Anthropology, in other words, must be in the business of what would ordinarily be called truth, understood (as broadly as one might wish, and in whatever sense one might prefer) as the attempt to provide representations that get their object right, as it actually is. (Holbraad 2012: xv)

As Holbraad seems to look for a broad kind of "true representation" of the Other's socio-cultural phenomena in their everyday lifeworld, the reader might consider this statement in terms of the phenomenological slogan to return "to the things themselves"—not least since the motto is in opposition to accidental findings, predetermined analytical concepts, and predestined "problems" (Heidegger 2002:

278–282). In general, the phenomenologist/anthropologist ought to describe the phenomenon in its manifestation—discovering how something appears (in)directly in the everyday lifeworld. On the other hand, such a phenomenological-oriented task might be considered particularly problematic in the anthropological discipline that usually is concerned with alterity. Holbraad (2012: xvi) declares,

> My basic claim is that what makes other people "other" is precisely the fact that they cannot be represented. Alterity, if you like, is the challenge to which re-presentation cannot rise: it is just when we are unable even to describe (let alone interpret, explain, translate, or analyze) aspects of people's lives that they become other to us. Things that are also people, people that are also gods, gods that are also wafers, twins that are also birds: these are the kinds of contradictory descriptions in which attempts to make sense of others by representing them may land us. The problem of alterity, then, is just the problem of nonsense: when even your best attempt to make sense of people's lives by representing them in terms you understand fails, you know you have hit upon it.

According to Holbraad, the representations of alterity are problematic because the anthropologists lack the right conceptual tools to make sense of them. Among other things, he makes his case by referring to Marcel Mauss' ([1925] 1972) ethnographic (re)description (Lebner 2017) of the Other's claim that gifts concurrently are "people and things," which in its first appearance is contradictory, or even absurd, for a negating Western ethnographer. This experienced contradiction occurs due to the ethnographer's Western capitalist context, in which there are explicit conceptual boundaries between sociality and materiality (cf. Barnett and Silverman 1979: 40–81). As the book title suggests, Holbraad's (2012) principal remedy for those negating ethnographers is recursive anthropology.

The reader could comprehend Holbraad's strategy as placing the content of ethnographic material and the form of anthropological analysis in parallel (as versions of each other) (2012: 239–240). This strategy (as used by myself in this chapter) might be considered as a manner of treating the ethnographic material as an analytical resource, as well as the analysis as ethnography. He emphasizes that this affirmative strategy is recursive, especially as there is an analogy between the description and the performance. Holbraad's point is that this recursive strategy will help ethnographers to move beyond absurdities and contradictions in the ethnographical representations, mainly as it generates new conceptual relations and meanings.

In the concluding part of the book, Holbraad (2012: 255–259) proposes the term *ontography* to describe his anthropological analysis. Ontography consists of

five methodological instructions to become engaged with alterity (here presented in compressed form). First, the ethnographer ought to describe ethnography as well as possible by utilizing representational criteria of truth. Second, he or she should examine the ethnographic descriptions for logical contradictions, which will show themselves when the informants express "irrationality." This form of senselessness could be measured as a sign of "alterity." Third, the ethnographer needs to specify the conceptual conflicts or negations underlying the contradictions. Fourth, he or she needs to redefine the concepts that generate contradictions—bringing the concepts in different relations with each other in order to remove the contradictions. Fifth, he or she needs to show the analytical, experimental thinking for the readers. The five steps will thus traverse the ontological distance between the ethnographer's analytical concepts and the ethnography.

I want to suggest that this is an affirmative approach, notably as it excludes various forms of negation, such as denying the existence of Maussian "people–things" as a contradictory expression. For ethnographers in a disciplinary context of post-representativeness, I propose, the lesson to be learned here mainly concerns the experiment of affirmative recursion between the content of ethnography and the form of analysis—a central point that I will return to in the concluding remarks.

# Dissolving negations?

In this chapter, I initially claimed that ethnographers could theoretically understand and explain the creative and contradictory thinking in the innovation political world using De Bono's (1970) concept of lateral thinking. In contrast to vertical thinking (the type of thinking in logic and mathematics), in which the person moves forward in sequential judgmental steps, the person aligned with lateral logic is free to leap back and forth to generate creative effects—a practice that usually results in contradictions of various kinds, but concurrently in "innovations." As the vertical thinker attempts to be right in every abstract logic step in a finite process (limited in extent), the lateral thinker might be incorrect in several conceptual moves (such as the case of some policymakers, policy-linked researchers, and entrepreneurs) since they involve a probabilistic process (involving chance variation).

Furthermore, as I disclosed the contradictory expressions out from the logic of lateral thinking, I also used this form of thinking as a productive tool with the ethnography of the world of innovation. As shown, the ethnographic use of recursive experimentation (Holbraad 2012; Holbraad and Pedersen 2017) with lateral thinking (here, mainly with the help of "fractioning") seemed to provoke contradictions among the three "helixes" in the interactive interviews. In the case

of Jonas (a regional representative of the Swedish state), the lateral thinking socially disclosed itself in the following two points: "The Triple Helix is not political but political," and "radical critical knowledge is applied commercialized knowledge." With Evan (a professor of materials science), the contradictions seem to be most apparent in the discussion concerning the universities' relationship with the state and the market (i.e., the industry). Evan points to the fact that "the university stands free from the state and the market but is trapped by politics and the economy." Lennart's (a local entrepreneur) contradictory expressions can be summarized as "applied research is different from basic research but is the same" and "the Triple Helix mobilizes political and economic resources but is not political." Moreover, the inherent provocative quality of lateral thinking, as a creative ethnographic interview method, also evoked physical expressions among the informants: uncomfortableness, sniggering, and defensiveness.

What post-representative anthropologists could learn from this experimental study (making connections to provoke something new) is to pay closer attention to the critical relationships between the principles of affirmation and negation. As previously shown, the main argument of post-representativeness implies an avoidance of employing a logic that negates the Other's conceptual and institutional connections. Instead, the ethnographer ought to affirm those conceptual and institutional relations of the Other by utilizing them as analytical tools. However, the following question arises: Will all negations (such as the case of contradictions) become dissolved in this form of post-representativeness? The spontaneous answer is no, not necessarily. As the experiment in this chapter shows, "affirmation" (ethnographic material with lateral thinking) plus "affirmation" (ethnographic method with lateral thinking) seems to provoke various interpersonal "negations" (verbal contradictions with associated physical expressions). It might be the case that the anthropological discipline is stuck with negations as they infrequently function as creative parts of the everyday lifeworld. Maybe we ethnographers should affirm the principle of negation and see where it takes us in a future post-representative anthropology.

# 5 POLICY-CENTRISM[26]

## Higher educational settings and ethnography

This chapter presents a suggested response to some of the problems experienced during fieldwork in the Öresund region. As such, the chapter might be seen as an experiment of creating alternative possibilities for thinking about ethnocentrism as a transforming phenomenon in the new innovative higher educational setting. I argue for the acknowledgement of policy-centrism as a phenomenon that has

[26] This chapter is a slightly revised version of "From ethnocentrism to policy-centrism" which appeared in (2018) *Ethnography and Education* 13(4): 1–17.

transformed out of classic ethnocentrism. It might be the case that policy as an unconscious ethnographic practice of scaling and rating is substantially under-researched; policy-centrism lacks empirical objects of evidence and certainly needs further ethnographic descriptions and problematization in European higher educational settings. However, with this chapter I hope to outline some initial critical and self-reflexive methodological aspects concerned with ethnography and higher education. The methodological question is whether ethnographers can think otherwise. Is ethnocentrism necessarily captive to the classical image of thought, or can we think about ethnocentrism differently in new settings?

As this chapter is of experimental character, the conceptual and descriptive relationships might be perceived as "partial connections" in the sense that they strive beyond a genealogy with core features (Strathern 2004b). The partial relationships, I hope, will open up new lines for ethnographers to think about and conceive the policy world.

Ethnocentrism as a persistently underlying phenomenon has unceasingly troubled anthropologists as they develop new theoretical frameworks in their understanding of ethnographic material. For example, Maurice Godelier (2009: 28) has stressed that the anthropological objective is to avoid producing knowledge based on our own cultural and political ideal assumptions. His main point is that anthropological knowledge production is to be constituted by a self-reflexive awareness of hegemonic discourses. In a similar manner, Eric Wolf (2001: 53) has warned us about being caught up in contemporary theoretical fashions. He has encouraged anthropologists to be critically aware that theories and concepts are always dependent on time and space, and occasionally on political projects. What Godelier and Wolf seem to be referring to, however, is ethnocentrism as it is expressed when doing ethnography—producing anthropological knowledge—in a geographical location different from the place where the anthropologist was born and raised. This leads to the question of where we are today when ethnographers are increasingly studying emerging socio-cultural, political, and organizational phenomena in higher educational settings.

Distinguished researchers have documented that higher educational systems around the world have undergone major complex organizational changes (see e.g., Shore, Wright, and Però 2011; Slaughter and Rhoades 2009). For example, higher education has been subject to increased economic and democratic governance with the implementation of new public management principles (Lorenz 2012) and various techniques of transparency (Strathern 2000b)—reforms designed to account for taxpayers' money and thus to reassure citizens about the disappearance of bureaucratic nepotism and corruption. In parallel with these economic and democratic reforms of efficiency, higher education has also been reorganized in line with new systems of accountability and auditing practices (Shore and Wright 2015). In these organizational settings, university teachers are supposed to give an account of their everyday practices with the help

of various auditing technologies to legitimize higher education in society. Furthermore, it has been noted that many managers today pay particular attention to the importance of establishing risk management (Power 2004), that is, organizational units whose function is to prevent future scandals or controversies. Likewise, researchers have underlined the socio-political fact of policymakers' efforts to implement pedagogy and the teaching of evidence-based practices. The main purpose of evidence-based practice is to equip future welfare professions with the "right practices" (Johansson et al. 2015). In the last few years, researchers and policymakers have increasingly argued for the establishment of various divisions focusing on (social) innovation in the higher educational system, which can be understood as a struggle to produce entrepreneurs in a way that will benefit regional social and economic growth (Taylor 2016). The policymakers are thus trying to hybridize the universities by connecting them to the state and to the business world, in the most unlikely collaborative clusters (see Etzkowitz 2005). Apparently, innovation policy is becoming the hegemonic organizational principle in higher educational settings (Hall and Löfgren 2016; Valaskivi 2012).

Against the background of these organizational changes, the higher educational system could be treated as a competitive assembly point of policy reforms, which makes it an attractive field for ethnographic inquiries. Consequently, researchers are calling for new contributing ethnographies of higher education (Friberg 2016; Pabian 2014; Wright et. al. 2020). Even though researchers are encouraging ethnographers to study the reorganization of higher education, I will argue that there seems to be a lack of essential ethnographic, methodological discussion—in particular, as it relates to ethnocentrism. For that reason, after providing an ethnographic background on how I first came to think about ethnocentrism as a phenomenon in transformation, a closer look at sociologist William Graham Sumner's classical work on ethnocentrism is a logical place to begin. In contrast to anthropological dictionaries and encyclopedias (see e.g., Barnard and Spencer 1996), Sumner's reasoning provides the reader with four distinctive principles—features that appear to be neglected by many contemporary social scientists concerned with ethnocentrism. As such, the following three parts discuss the transformation of Sumner's principle of ethnocentrism. The concluding remarks will further problematize what I have termed policy-centrism as an emerging phenomenon in the new research context referred to as policy innovation.

# Ethnographic background

As a background to the relationship between the problem of the chapter—ethnocentrism as a transforming phenomenon—and my fieldwork, I will briefly outline the emergence and the completion of a collaborative project in the Öresund

region. The project in question took place in a higher educational setting. The ethnographic exemplification will be followed by an explanatory and reflective comment about how I came to think about ethnocentrism in transformation. The ethnographic background is not so much analytical as it is anecdotal; it is intended to clearly describe the emergence of the chapter's problematization and to enlighten the reader about how ethnographic lived experiences may lay the ground for alternative possibilities for social scientific thought (see Smith 2005).

A project leader (Cecilia), at Lund University in Sweden, was telling me a story about the emergence of a regional collaborative project. Cecilia explained in an interview that this project began when an international research group in Nuclear Physics contacted her because they needed funding for an accelerator module to be placed at CERN.[27] At the time, Cecilia was working in an organization consisting of nine Danish and Swedish universities in the Öresund region. The aim of the organization was to promote collaboration between academia, research, and society as a whole (during the interview, Cecilia occasionally referred to various innovation policy documents when explaining the relationship between academia and society). The nuclear physicists wanted to build and place the accelerator module in CERN, but Cecilia told them that there was "a problem", in that the project gave no account of collaboration between various groups (see also Chapter 2). In order to help the researchers, apply for funding, she thus came up with the idea to turn the project into a "collaborative project of competence development". The researchers thought it was a great idea and agreed. The project was thereby redesigned so that regional entrepreneurs were now in focus since their competence was to be developed in line with the current policy guidelines. Once the project was aligned with the regional and European innovation policies, which encouraged collaboration between regional researchers and entrepreneurs, it quickly became funded. The overall idea of the project, Cecilia clarified, was to train the regional entrepreneurs in public procurement, manufacturing, and delivery of components to the accelerator module. She explained that the CERN project "was a perfect training opportunity" for local entrepreneurs to take part in the future construction of ESS and MAX IV in Lund, Sweden. What the regional entrepreneurs could learn from the CERN project would qualify them for future procurement, manufacturing and delivery tasks related to the construction of the two research facilities.

As an ethnographer, I participated in and observed the last conference of the CERN project with invited speakers from the region—government policymakers, industrial entrepreneurs, and university researchers. The first speaker was a professor of nuclear physics. With a firm voice, he said that the project had

[27] CERN is the European organization for nuclear research and is today (2018) the world's biggest particle physics laboratory. It is located in Switzerland (Geneva), close to the French border.

received considerable attention since the participants had collaborated across cultural boundaries, and that the project today "seems to be a model for many other regional collaborative partnerships". This kind of responsiveness can be traced to the contemporary construction of the ESS and MAX IV, he argued. He smiled and told the audience: "Lund is hot with accelerators." Consistent with what Cecilia had previously told me, the professor claimed that the project had prepared regional companies to take part in the future construction of the two research facilities. "However," he stated, "I hope that the procurement, manufacturing, and delivery work related to ESS and MAX IV are not going to land outside the Öresund region. In an emotional way ... it feels like the regional companies are ours." In this context, he was referring to the regional entrepreneurs who were part of the CERN project. The researchers and the regional companies had worked closely together for nearly two years in order to manufacture the components—while the researchers had the theoretical knowledge about the expensive metals, "the companies contributed the practical skills for turning and frying the metals", the professor announced. The high cost of the metals combined with the close collaboration the work entailed seemed to create emotional bonds between the researchers and entrepreneurs. When I was discussing the issue of "expensive metals" with one of the entrepreneurs during the break, he told me: "There was no room for fault tolerance when constructing the components, so we had to work really closely with the researchers." His account of the expensive metals was echoed by two other entrepreneurs that I met in another conference a couple of weeks later. They informed me that many companies had backed out in the initial phase of procurement since they saw it as "a highly risky business". When I asked why people assumed it was "risky", the entrepreneurs explained that a failure in manufacturing the components would most certainly mean that the companies (which had few employees and limited finances) would go bankrupt. Small companies would simply not be able to pay for new metals if they were "unable to get the component right from the start", I was informed.

Later in the afternoon, a middle-aged entrepreneur happily told us about his experience of participating in the CERN project. "The key to success", he stated, "is to work within natural collaboration clusters." To illustrate his statement, he described his encounter with academics and explained how their openness in sharing technological skills surprised him:

> CERN has a lot of knowledge to offer. One time I had a question, and I went to see the old man in the workshop. I stepped into a totally fabulous workshop, and the old man shared his knowledge and skills with me. Absolutely fantastic!

As an entrepreneur from the private sector, he was not used to being invited to partake of others' skills, since business is usually about competitiveness. This

form of encounter with academics, he further argued, "has broadened my mind when it comes to collaboration". However, he underlined that companies in general should not expect any higher economic profit from a collaborative project: "It is more getting technological experiences than money that counts", he said. The entrepreneur concluded: "Instead of finding ourselves 25 years behind the technological development, our company is today positioned at the leading edge, which favors future procurements concerning ESS and MAX IV."

The conference ended with a panel discussion that included state, industry and university representatives from Sweden and Denmark. Most on the panel agreed that collaboration—between academic researchers and entrepreneurs from the business world—is very valuable when it comes to economic and social development. Collaboration across what they call "cultural boundaries" will create new innovations and thus generate regional economic growth (see also Hallonsten 2012; Kaiserfeld and O'Dell 2012).

## Reflections on ethnocentrism

These ethnographic events made me think about how people involved in the CERN project were somehow scaling and rating various social and material situations through the world of innovation policies. As a matter of fact, as an ethnographer I was no exception. I also took the collaboration policy ideal for granted when collecting ethnographic data during fieldwork. Furthermore, as a social scientist studying how academia, the state and industry collaborate to a certain extent across explicit boundaries, I was invited to partake in various collaborative clusters. As I was part of the scientific community (academia), some informants imagined me as a potential collaborative partner in the social and economic regional development. At the time, it seemed like an unproblematic idea. But as the fieldwork carried on, I became increasingly critical and thus respectfully declined the offers due to the analytical fact that it seemed like a case of transformed ethnocentrism.

Consequently, this chapter could be read alongside Dorothy Smith's ethnographic approach that suggests that "it is people's experience which sets the problematic of the study" (2005: 38) rather than a pregiven conceptual framework. Inspired by Smith's ethnographic project, I am translating the problematic experiences into conceptual, political, relational, and expressional discussions related to the transformation of ethnocentrism. In other words, it is an experimental investigation of how ethnographers' research lives are complex and embedded in invisible policy relations. As recently noted by other ethnographers (see Vaaben 2013, 2014a), these innovation policy relations are difficult to detect from within the field.

# Starting point

As a starting point, I will begin with Sumner's classical work *Folkways* (1940) to disclose the constitutive principles of ethnocentrism as a phenomenon. The brief investigation of the overlapping principles will then set the stage for the following discussion in the chapter.

In the first chapter of the book, Sumner searches for the mode of origin of folkways. As the (probably) first social scientist to employ the term "ethnocentrism", he proclaims that "Men begin with acts, not with thoughts", something he learned from contemporary scholars in anthropology and ethnography. In his role as a sociology professor, Sumner argues that people act collectively in groups rather than individually. This sociality, he stresses, is due mainly to the social fact that people can profit from each other's experiences in order to survive. In time, however, these experiences turn into customs and become folkways. Drawing upon rich ethnographic material, Sumner continues by writing that the young learn from their elders through tradition, imitation, and authority. As time goes by, the folkways become increasingly arbitrary, positive, and imperative, and people in general simply follow what their ancestors have been doing. Sumner argues that folkways are societal forces in the sense that there are "great numbers acting in concert or, at least, acting in the same way when face to face with the same need" (1940: 3). Sumner sees folkways as unconscious as they satisfy people's immediate needs. People act unconsciously out of previous experiences with the group they belong to. Folkways are ways of satisfying needs. As time passes, according to Sumner, the folkways' origins will be forgotten and unquestioned. As a reader in the twenty-first century, the mind goes to Bourdieu (1997: 95), who argues that the unconscious in social life is nothing more than the loss of history. When people forget about the historical production forces, they become unaware of how contemporary social phenomena became possible.

It is in this context that Sumner discusses the relationships between various small groups that are struggling for their existence. He writes that groups are always making differentiations between themselves (the in-group) and everybody else (the out-group):

> Ethnocentrism is the technical name for this view of things in which one's own group is the center of everything, and all others are scaled and rated with reference to it. Folkways correspond to it to cover both the inner and the outer relation. Each group nourishes its own pride and vanity, boasts itself superior, exalts its own divinities, and looks with contempt on outsiders. Each group thinks its own folkways the only right ones, and if it observes that other groups have other folkways, these excite its scorn. (1940: 13)

Sumner draws attention to the social fact that the in-group classifies the out-group, with the help of various dismissive categories (such as "Pig-eaters" or "Cow-eaters"), and that this kind of exaggeration leads to intensifying their own folkways and thereby to differentiation between the two groups. All in all, Sumner's argument on ethnocentrism might be understood in relation to his anti-imperialistic approach (cf. Sumner 1899), that is, while people are scaling and rating through their own folkways, they seem to see themselves as entitled to others' land and resources (a vital argument that seems to be forgotten in more recent discussions of ethnocentrism).

As an anthropological reader of Sumner, one undoubtedly comes to think of Lévi-Strauss (1967: 128–160) analysis concerned with dual organizations—the relationship between two groups. It is interesting to note that "ethno" is positioned as "centrism" in Sumner's writing. The ethno (folkway) is at the center while the two groups—the in-group and the out-group—are positioned in diametric opposition. Following Lévi-Strauss' structural analysis, it becomes possible to stress that we are dealing with a dynamic concentric structure that "contains an implicit triadism" (1967: 148). Consequently, we can outline Figure 5.1.

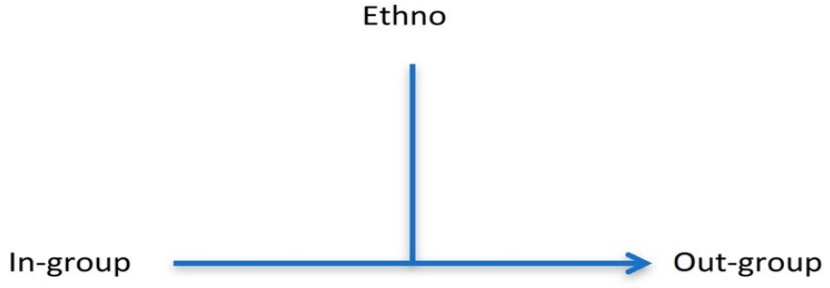



**Figure 5.1**. The structure of classic ethnocentrism.

This implicit triadism—the structure of classic ethnocentrism—is helpful when reviewing the phenomenon's four constitutive principles.

## Four constitutive principles

It is quite indisputable to argue that Sumner is a product of his intellectual time and place. Nevertheless, as suggested above, I think Sumner's reasoning on ethnocentrism is still of interest in the sense that it is an excellent point of departure—it is "good to think with". What we can learn from Sumner is that ethnocentrism consists of four overlapping principles: (i) conceptual, (ii) political, (iii) relational, and (iv) expressional. In relation to the first principle, the original conceptual constitution of the phenomenon is "in-group", "ethno" and

"out-group". As an analytical tool, the original phenomenon in question seems to be the preferred method when referring to the ethnocentric natives rather than to the ethnocentric ethnographers. Such analytical use, however, has become inverted over time. Today, most anthropologists are using ethnocentrism as some kind of methodological indicator to see if the analysis is doing full justice to the objects under ethnographic investigation. This is exactly my point of view. When discussing ethnocentrism, I refer to social scientific methodological and analytical problems between the social categories of "ethnographer" and "informants". The second principle concerned with the political brings attention to imperialism. The political principle of imperialism is important in the sense that ethnocentric practices could be interpreted as the centrality's right to intervene and claim resources in periphery domains. The technologies that are used in these ethnocentric practices are those of "scaling and rating" the social and material lifeworld through the central apparatus. The two concepts could be understood as units of measurement—an unconscious rationalistic political technique of measuring various objects and subjects against one another. Concerning the third relational principle, it is important to emphasize that the social relation between the "in-group" and the "out-group" is to be considered one-way. The scaling and rating go from the left (the in-group) to the right (the out-group) and not the other way around. Regarding the fourth expressional principle, it is essential to emphasize that ethnocentrism is an expression of the current policy settings, that is, the prevailing classificatory or categorical ideals (such as "Pig-eaters" or "Cow-eaters"). As the history of anthropology has shown (from the perspective that views ethnocentrism as a methodological problem), ethnographies somehow, more or less, give expressions of the current Western hegemonic political settings (see e.g., Stocking 1995). With these two final principles in mind, the investigation will begin by studying the prevailing ideal of the European innovation policies (as it is closely affiliated with higher educational settings) to understand ethnocentrism as a transforming phenomenon.

## The relational and expressional principles

This part will be concerned with the third (relational) and the fourth (expressional) principles of ethnocentrism as a phenomenon. Concerning the relational principle, I attempt to show the tendencies of transformation: from a one-way to a two-way relationship. In an overlapping argumentation, I will also lay bare how ethnocentrism, in higher educational settings, gives expression to the prevailing classificatory or categorical ideal of collaboration. This means that I will connect policies from the European Community (EC) and the Organization for Economic Cooperation and Development (OECD) with national and regional

innovation systems in Sweden to be able to say something about the policies' common ideal.

## EC on innovation

The EC has a pronounced strategy of increasing innovations in Europe. In the policy document "Europe 2020: Flagship Initiative Innovation Union" it becomes obvious that innovation is an overarching policy objective:

> At a time of public budget constraints, major demographic changes and increasing global competition, Europe's competitiveness, our capacity to create millions of new jobs to replace those lost in the crisis and, overall, our future standard of living, depend on our ability to drive innovation in products, services, business and social processes and models. (EC 2010: 2)

The Innovation Union is one of the seven flagships in the EC. Policymakers aim to realize Europe's full potential by ensuring that it has excellent researchers, entrepreneurs, and companies. According to the policymakers, this further enables Europe to compete in a rapidly changing global economy. To be able to construct the Innovation Union, Europeans are supposed to pay attention to the following 10 points (here in compressed form):

1. Invest in education, research and technical development, innovation and information and communications technology.
2. Link up national research and innovation systems with each other.
3. Modernize education systems to become world-class universities and thus attract top talent from abroad.
4. Increase collaboration between researchers and innovators within Europe.
5. Simplify access to EU programs and reinforce the role of the European Research Council.
6. Get more innovations out of research by encouraging collaboration between science and business.
7. Remove barriers preventing entrepreneurs from bringing "ideas to the market".
8. Accelerate research, development, and market deployment of innovations to tackle major societal challenges.
9. Exploit strengths in design and creativity to develop an understanding of public sector innovation.
10. Adopt a common EU front where needed to protect Europeans' interests when working with international partners.

Following these 10 overlapping points will repair public finances, create new growth and jobs, and get Europe back on track financially. Among other things, policymakers claim that the Innovation Union will find solutions to issues of climate change, energy supply, demographic changes, health, and security. As we will see next, the EC's innovation strategy is not that far away from the OECD's notion of innovation policy.

## The OECD

The policy document "OECD Reviews of Regional Innovation: Regions and Innovation Policy" (OECD 2011) focuses on two main questions: (1) How can regional actors support innovation that is relevant for their specific regional context, building on their human and physical assets? (2) How should national innovation policies take into account this regional dimension, the local nodes in global networks? It follows that innovation policies are mainly to be concerned with regional knowledge accumulation. In the Preface, it is stated that long-term sustainable economic growth is not simply to be seen in relation to the accumulation of physical capital, that is, investments in machines, buildings, and roads:

> Ultimately, long-term sustainable growth will depend on knowledge accumulation, either embodied, in smarter capital, a more efficient use of natural resources and a better educated labor force, or disembodied, for example, as codified in patents, copyrights or trademarks. Knowledge accumulation depends on investment in education, including tertiary education, training, and lifelong learning, accumulated scientific knowledge and technological advancement, and on social and institutional development. (2011: 15)

The statement of the importance of knowledge accumulation is followed by an argument that there is a "consensus that long-term economic growth" is achieved through investments in science, technology, and innovation. Taken together, the OECD's innovation policy is no stranger to Swedish policymakers.

## Sweden's innovation system

In 2014, Sweden's innovation system was in the top position in the EC's (2014) overall ranking evaluation. One might attribute this success to the establishment in 2001 of VINNOVA, the Swedish governmental agency for Innovation Systems (cf. Eklund 2007; Hall 2020). In various debates concerning guidelines for Swedish research, policymakers emphasized the importance of a national innovation system. Rather than taking a piecemeal approach, they argued for a unified system. Four challenges were identified as particularly important to

strengthening the Swedish innovation system: (a) the need for industrial and innovation policies to strengthen the Swedish development capacity; (b) the need for collaboration between the public and private sectors; (c) the need for collaboration between individuals across boundaries, and (d) the need to strengthen the analysis on the innovation system (Kempinsky et al. 2011). The research bill "En politik för tillväxt och livskraft i hela landet" [A policy for growth and vitality throughout the whole nation] (Näringsdepartementet 2001/02:NU4) emphasized that the Swedish research system was fragmented since it consisted of many different authorities. The consequence of such fragmentation, the politicians argued, was split-up resources and ineffective collaboration between the different financiers. A new research funding system was therefore necessary. The purpose of the bill was to create a new organization for research funding that made it possible to concentrate efforts in key scientific areas, foster collaboration between research and development and improve the dissemination of information about the research and its results. The politicians wanted to stimulate interdisciplinary studies, increase the quality demands by reinforced governance, sharpen the focus on basic research and create a more efficient organization for applied research to support the Swedish innovation system. As a result, 11 agencies were merged into four research funding agencies, one of which was VINNOVA. Accordingly, VINNOVA was organized in line with the notion of collaboration between universities, industries, and government.

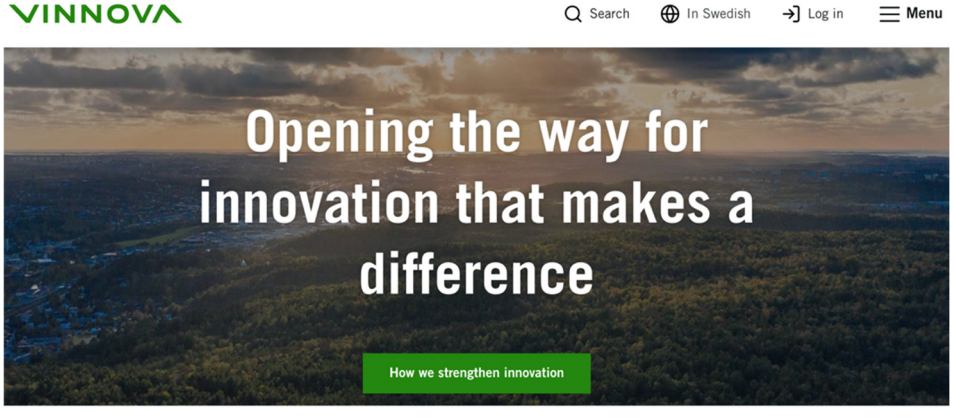



**Figure 5.2**. VINNOVA's homepage in 2021.

Sweden became the first country in the world to have a public authority directly related to the Triple Helix model, that is, collaboration between universities (researchers), industries (entrepreneurs) and states (policymakers) (Etzkowitz 2005; Kempinsky et al. 2011). As we will see, this kind of organization will have its impact at the regional level.

## The Öresund region

Today the Öresund region is often imagined as the site with the greatest potential for economic and social growth. The region's popularity is mainly to be seen in relation to the establishment of two research facilities in Lund: ESS and MAX IV. Leading up to this regional undertaking, the Skåne Research and Innovation Council (FIRS) and Sounding Board for Innovation in Skåne (SIS) launched an international innovation strategy (2011). In line with the EC's "Innovation Union' strategy, described above, the aim of the regional strategy is to increase innovation in the future. Their vision is to become "Europe's most innovative region in 2020". By collaborating through regional, national, and international networks, the policymakers strive to create an attractive innovation environment, that is, an "innovation culture constituted by creativity, openness and diversity". Prerequisites for realizing the vision are the collaborations between business, universities, and the public sector (the Triple Helix model), which together will solve future global challenges.

Policymakers thus aim to foster an innovative attitude—entrepreneurship—among students living in the region. It is argued that, to create a strong capacity for innovation, one should work with "open innovation models"—increased collaboration between various kinds of people. Research and higher education are said to be two essential aspects behind the development of new innovations. That is basically why ESS and MAX IV, as research facilities and educational spaces, are imagined as the essential growth engine in the collaborative regional social and economic development (see Chapter 1 and 2).

## Innovation policies and the common ideal

I have briefly sliced out the policy connection from the EC and OECD to national and regional levels in Sweden (see Figure 5.3.).[28] From this point of view, policymakers seem to highlight and promote "collaboration" as an essential concept and social relational practice for the emergence of innovations. It follows that the university (higher education) will provide impetus to the spread and implementation of collaborative relationships (as also noted in the ethnographic background):

[28] The general notion of "vertical slice" derives from Laura Nader's writing and method (see Stryker and Gonzalez 2016).

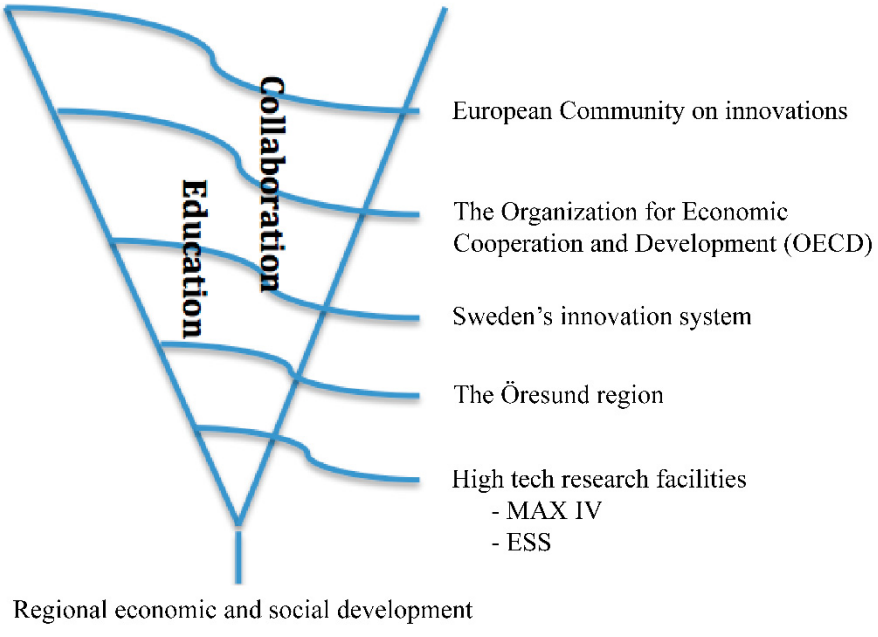



**Figure 5.3**. The vertical slice of innovation policy.

Evidently, with regard to innovation policy setting, the prevailing ideal is that of collaboration. The ideal of collaboration is mainly concerned with the hybridization of policymakers, academic researchers, and entrepreneurs from the business world.

As an ethnographer in higher educational settings, I would like to argue that ethnocentrism could be understood as giving expression (the fourth principle) to the prevailing classificatory or categorical ideal of collaboration. This will, of course, have an effect on the third principle, social relation, which means that the original one-way relationship has been transformed into a two-way relationship between the ethnographer and the informants. What I would like to draw attention to in this context is the non-tensional social relationship between the ethnographer and the informants (see Chapter 6). Rather than intensifying differences, as Sumner argued for in its classical form, the new transformed social relation of ethnocentrism has to do with intensification of sameness because of the collaborative ideal.

## The conceptual principle

Against the background of the discussion of the third and fourth principles, this part will examine the transformation of the first conceptual principle of classic ethnocentrism. I will argue that ethnographers in higher educational settings ought to treat phenomena in terms of "policy" rather than "ethno". My argumentation is related to a recent case of innovation policy's centrality when practicing ethnography "at home".

In an anthropological paper, "Reconsidering Innovation", Nana Katrine Vaaben (2014a) tells an intriguing story about her encounter with two innovation projects in connection with her fieldwork. Her initial attempt was to explore innovation in the Danish public sector—trying to understand the process of innovation based on the organizing principle of collaboration (as previously presented in the European policy documents). Eager to capture the innovation processes, she constantly looked for innovations within the two mentioned projects. However, as time went by, she understood that she was not finding any instances of innovation. She began to discuss the case with the project leaders and managers, and found that they, too, were having problems discovering innovations. Vaaben learned that the project leaders and the managers were even more frustrated because they were actually required to find innovations and to report them back to the fund supporting the projects. In the light of the absence of innovations, Vaaben, the project leaders and the managers began to discuss the essence of innovation, asking how best to identify innovations in everyday life, and negotiating the principles of innovation in line with those criteria found in scientific innovation theories. However, in a self-reflexive manner, Vaaben soon concluded that it was an absurd and meaningless agenda to identify innovations. She thus took the opportunity to reconsider innovation. Vaaben argued that "innovation was not something to look for or to look at, it was something to look through". She highlighted that innovation is to be understood as a prism. Thus Vaaben turned to perspectivism in order to explain her experiences. I will return to the discussion of the relationship between perspectivism and ethnocentrism in the following part. For the moment, however, I would first like to say something about the phenomenon's transformative expressions.

In the setting of innovation policies, ethnocentrism could be understood in terms of "policy-centrism"—as it expresses the ideal of collaboration and innovation. The presented ethnographic case offers an insight into the collaborative social relation in which both parts are scaling and rating the lifeworld through European innovation policies. I could argue for "collaborationism" (Steyn and Semolic 2017) or "innovationism" (Brint 2018), but such argumentation would miss the point because the phenomenon's meaning is changing due to the ideal categorical or conceptual force that takes possession of it. Treating ethnocentrism in terms of "policy" seems to be more convenient

when focusing on ethnographic analytical problems in higher educational settings. In other words, I think it is high time to strive beyond the expression of "ethno" when it comes to the problematization of ethnocentrism in higher educational settings.

## The political principle

Regarding the second political principle of classic ethnocentrism, I will here discuss how ethnographers in higher educational settings can understand policy-centrism. That said, I am going to draw upon the classic technologies of scaling and rating the lifeworld and pay attention to the relation to the imperialistic tendencies. This part will become a development of Vaaben's reasoning on perspectivism. Rather than seeing, I argue, policy-centrism is about doing practical interventions.

So, how are we to understand policy-centrism today? To answer this question, I would like to go back to the situation when Vaaben became self-reflexive and suggest that this is to be seen as the blurred form between classic ethnocentrism and policy-centrism. The main reason for treating Vaaben's awareness in the middle is that she, unfortunately, fails to push it further. Vaaben seems to halt in the middle because she is entangled in the Western philosophical conception of the distinction between theory and practice. Theory is something people observe with, while practice is closely related to things they are doing. I think there is more to it. Therefore, I would like to make my point with the help of philosopher Hans-Georg Gadamer's (1998: 16–36) two senses of theory; both originate from its Greek *etymon*. On the one hand, Gadamer argues, theory involves seeing important things beneath the visible surface. On the other hand, he maintains that theory is also about participating in the present—a mode of intervening in the public domain. Theory is not disinterested or disengaged. Rather, in the second sense, theory is a form of participation in which the theoretician is unable to stand outside the field he or she intervenes in. While Vaaben pays tribute to theory (innovation policy) as a way of seeing (perspectivism), I suggest that it seems more analytically productive to perceive innovation theory as a way of doing (practice). Policy-centrism as a transformed phenomenon of classic ethnocentrism, I claim, needs to be comprehended in terms of doing and intervening, which in its prolongation draws attention to a kind of imperialistic policy system. As such, ethnographers are not simply seeing, when they become policy-centric, because they are essentially doing a political practice of intervention. Corresponding to the second principle of the political, the policy-centered ethnographer and the informants are naively scaling and rating the social and material lifeworld through the current conceptual and classificatory policy ideal.

The consequences of widespread policy-centrism would probably mean a hybridization of the modern vocational distinction between science and politics. There would no longer be any significant differences between knowledge for the sake of knowledge (scientific analysis of political structures) and knowledge as a means to achieve something else (political pursuit of power or influence on checks and balances) (see Weber 1977: 25, 41).

# Problematizing policy-centrism

I began by discussing the classic source, Sumner, who was the first scholar to pay close attention to ethnocentrism. As Sumner was very interested in folkways, he employed the term ethnocentrism and argued that this is the phenomenon that strengthens the constitution of in-groups. With the help of a modest structural analysis, I uncovered the implicit triadism in Sumner's general reasoning concerned with ethnocentrism. Within this structural framework, I further disclosed four overlapping, constitutive principles of classic ethnocentrism as a phenomenon. The first principle concerned the conceptual, focusing on the "in-group", "ethno" and "out-group". Throughout the chapter, I suggested that ethnographers in higher educational settings could advantageously replace the centralized "ethno" with "policy"—thinking of policy-centrism instead of ethnocentrism. Subsequently, the discussion of replacement was connected with the fourth principle of expression, that is, ethnocentrism as an expression of contemporary hegemonic classificatory and categorical ideals. As in our own specific case, I stressed that the transformed ethnocentric phenomenon in higher educational settings especially expresses the ideal of collaboration. The issue of collaboration was closely related to the third relational principle, in which I pointed to the social fact that the one-way relation is becoming replaced by a two-way collaborative relationship between the ethnographer and the informants. For that reason, the relationship between the ethnographer and the informants, I claim, is no longer constituted by an analytical tension: it is rather about a process of intensifying sameness (see also Chapter 6). The argument of the new emerging social relationship led to a discussion of the second political principle (of the classic notion) of ethnocentrism, that is, the use of the imperialistic technologies of scaling and rating the social and material world. That is to say that ethnographers and informants, in higher educational settings, are at risk of scaling and rating the lifeworld with the help of classificatory or categorical policy ideals.

A comparative perspective with other areas (such as China and USA) would of course be most welcome, not least since innovation policies are spreading rapidly all over the world. I will, however, leave this open for other ethnographers to investigate. For now, I would like to problematize the How, Why and Who.

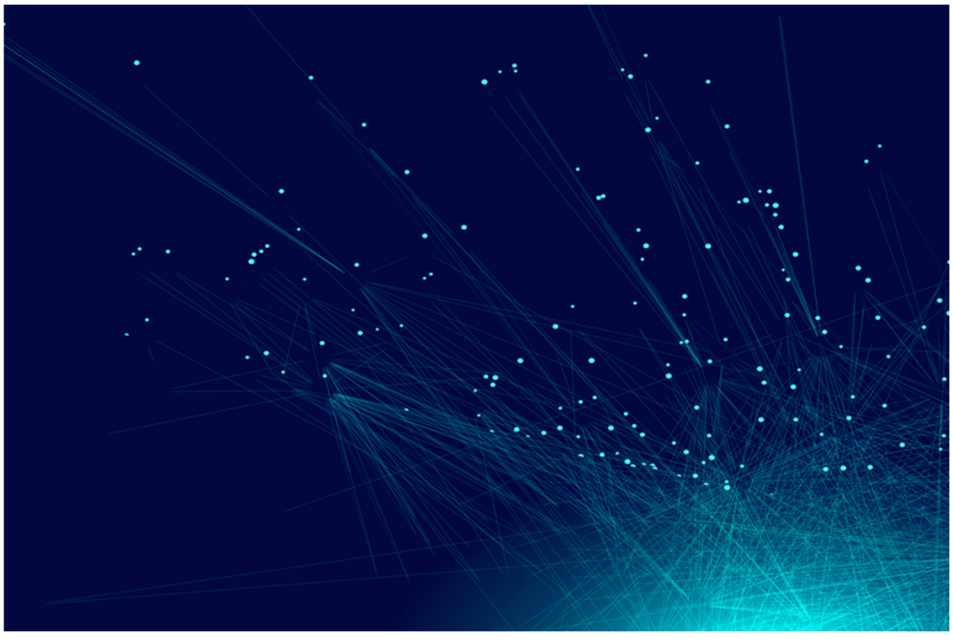
How can ethnographers in higher educational settings strategically avoid policy-centrism? My point here is not to say that ethnographers can find objective research lines beyond the innovation policy context. Rather, I want to suggest that we can produce alternative images of the contemporary world(s) if we avoid policy-centric knowledge production. As noted in the introduction, this ethnographic strategy includes a kind of disciplinary heritage from Wolf (2001) and Godelier (2009), who emphasized the importance of self-reflexivity and critique regarding ethnographic projects. With this in mind, I would like to suggest that ethnographers in higher educational settings could sidestep policy-centrism with the help of a two-part initiative. Firstly, the ethnographer needs to partake of a self-reflexive counter-hegemonic discursive research line, and then secondly, critically connect policy ideals with their histories, place(s) and political project(s). These two steps imply that ethnographers (a priori) would understand themselves as knowledge producers in assembly with time, place, and politics, and from that acceptance try to strive towards an a-centric research line.

But then, why would ethnographers in higher educational settings want to avoid policy-centrism? I will provide two arguments. The first argument: because policy-centrism is a kind of self-referring imperialistic system without any possible realistic observations beyond itself. Sociologist Luhmann (1990: 6–8) underlines that "simplifying self-observation" constitutes a self-referring social system. By observing and communicating about itself, the system makes a distinction between observers and something else—as a logical contradiction (see also Chapter 4). However, the system will never become truly self-transcending. Self-reference and observations can never be fused, according to Luhmann, even though it is a logical prerequisite for a self-referring system. When such a system faces logical contradictions, it simply jumps ahead for future communicative possibilities. As most ethnographers are aware, critique and self-reflexivity need to be anchored in tensions, which the policy-centric, imperialistic system does not offer. It reminds us about Geertz's (2000: 57–58) distinction between being a witch and studying witchcraft, as two different lines of understanding the lifeworld—the ethnographer cannot be a witch while, at the same time, he or she is observing witchcraft. One might call Geertz a binary dualist in this sense, but the fact is that he seems to have a relevant point of maintaining or (re)constructing the tension (see Chapter 6) between the ethnographer and informants if we would like to "figure out what the devil they think they are up to". As in our own specific case, ethnographers in higher educational settings will most certainly face analytical problems when they become collaborative innovators while concurrently observing collaborative innovation (as a case of intensified sameness). This reasoning leads to the second argument as to why ethnographers would avoid policy-centrism, which is concerned with the political principle of the self-referring system. Ethnographers in higher educational settings, I strongly argue, ought to avoid policy-centrism because of its imperialistic tendency.

Should ethnographers become part of the self-referring and imperialistic system, they would be unable to divorce themselves from its control, as Kapferer (2014) has warned us. They would most likely find it difficult to maintain or construct the deep-rooted tension between ethnographer and informants, which is vital for the progress of the anthropological and similar ethnographic-oriented disciplines (Dumont 1992: 218).

So, who is affected by policy-centrism? As it might be difficult to give one single correct answer, I would like to point at "the geography of imagination" (Trouillot 2003: 1–5) and argue that it still matters in relation to ethnography and ethnocentrism. While ethnographers in exotic places away from "home" (Holbraad 2012; Pedersen 2012) are occupied by folding or dissolving the tension between ethnography and informants, it seems that ethnographers in higher educational settings need to do the opposite, that is, maintain or reconstruct the tension. If we agree with the ethnographers who are doing ethnography "away"—that anthropology is about producing new concepts, as a kind of intervention of the Western mind—it should be considered that ethnography in higher educational settings demands a reverse analytical strategy. To intervene the European mind, concerned with the collaborative hybridization of higher education, the state and the business world demands that ethnographers intervene with innovation policy when producing new knowledge and concepts.

# 6 TENSIONLESS[29]



## The absence of tension

In ”Reconsidering Innovation” (2014a), anthropologist Nana Katrine Vaaben discusses and problematizes her encounter with two innovation projects in connection with her fieldwork. Vaaben’s initial attempt was to explore innovation in the Danish public sector, that is, she strived to understand the process of

[29] This chapter is reproduced, with minor changes, from an article titled “Exploring tensionless ethnography” in (2019) *Ethnography.*

innovation based on the conceptual notion of ”collaboration” across public and private institutional boundaries. In this sense, she steadily looked for innovations within the two mentioned worlds of the project. However, as time went by, she realized that she was not finding any instances of innovation. As a result of this disappointment, Vaaben discussed the case with the project leaders and managers and found that they, too, were having problems discovering innovations. Vaaben learned that the project leaders and the managers felt an enormous frustration, as they were required to find innovations and report them back to the fund supporting the projects. In the light of the absence of innovations, Vaaben, the project leaders, and the managers began to consider the essence of innovation, asking how best to identify innovations, and negotiate the principles of innovation in line with those criteria found in scientific innovation theories. However, in a self-reflexive manner, Vaaben came to realize that it was an absurd and meaningless objective to identify innovations. Hence, she took the opportunity to reconsider innovation.

Vaaben's captivating story indicates that the ethnographer's key concepts seem to be similar to the Others' ideas in the world of innovation. I would argue that this story is not to be considered as an isolated, specific ethnographic case. Today it is not unusual to observe how ethnographers encourage global innovation policies (see, e.g., Akrich et al. 2002a, 2002b; Callon et al. 2011) or become influenced by research politics (see, e.g., Lex 2013; Welz 2003) in their attempt to discuss or disclose “innovation”. It follows that the tension of concepts and attitudes between the ethnographer and the Others is absent—a phenomenon I suggest be termed as tensionless, which in its prolongation permeates the ethnographic method.

Marilyn Strathern (2000a: 286–7, 2004, 2006) has suggested that ethnographers ought to become critical and self-reflexive about the new relationships between anthropology and the emerging processes of innovation policies, especially as there are several indications of increased tensionless monologues on behalf of tensional dialogues of the everyday social lifeworld. Strathern underlines that there are many political attempts to bridge different worlds, something that puts the dialogic ethnography in awkward positions. The question to be asked then is the following: How could ethnographers become critical and self-reflexive of tensionless ethnography? The purpose here is to extend a self-reflexive methodology (Scholte 1972; Salzman 2002; Clifford and Marcus 2010 [1986]; Marcus and Fischer 1986) by intervening in the ongoing innovation policy processes.

## The intrinsic ethnographic tension

As a reader of the history of ethnography (Stocking 1984), one can continuously feel the underlying tension between the ethnographer's worldview and the Others' culture. This constitutional form of tension seems to have been most intensified during the ”representation crises” in the mid-1980s. During this era, many ethnographers seriously began to question the ethnographic project (Clifford and Marcus [1986] 2010; see also Marcus and Fischer 1986; Geertz 1988), as they made critical reflexions on the notion of making text in the field (fieldnotes) and behind the desk (writing up the monograph). Ethnography, they argued, is produced in the interaction between the familiar and the foreign, marked by the dominant asymmetry between the ethnographer and the Others. Pointing to the literate fact that ethnography is a practice of ”writing culture” is to be understood as: key concepts, metaphors, and narratives affect the manner in which phenomena are (re)described (see Lebner 2017). Hence, the critics underlined the textual fact that ethnography situates between tensional systems of meaning wherefrom it translates, decodes, and recodes cultures. They, however, made possible new forms of critical reflexivity, discussions of subject positions, and textual strategies for polyvocality.

Consequently, George Marcus (1998) claimed that it was urgent for ethnography to contextualize itself in order to become self-reflexive about its site practices. In line with Marcus' argumentation on the development of multi-sited ethnography, it explains that ethnography ought to do more theoretical work than previously has been done. Marcus writes that ethnography needs to ”expand and innovate the possibilities for making arguments through the description, the delineating of process, the orchestrating and representation (or evocation) of voice, etc.” (Marcus 1998: 13). A strong argument within the multi-sited ethnography could be done by tracing, describing, and connecting sites that previously were incommensurate. Marcus along with others (Gupta and Ferguson 1997) saw the multi-sited imaginary of fieldwork (connecting sites) as striving between the tension of the strange and the familiar that constitutes the traditional act of ethnography in place.

The overall point, here, is to call attention to the productive tension intrinsic in the ethnographic project. As evident in the representation crises, the ethnographic tension is vital for generating disciplinary critical and self-reflexive interventions and debates of various kinds (see also Scholte 1972; Salzman 2002). In this situation, I will draw further inspiration from Pierre Bourdieu's (1997: 81–99) commentary that those social scientists (sociologists, as well as anthropologists) who float with the fashion's whims (here, understood as “innovation”) are often dominant while being dominated in time. In other words, these ”scientific fashionists” (as we might consider calling them) are involved in the contemporary in the sense that they disappear with it. Accordingly, Bourdieu argues that the

ambition of critical social scientists ought to be a disengagement from the contemporary dominating socio-political processes. The disengagement constitutes a self-reflexive practice to scrutinize our conceptual and methodological tools—thus creating possibilities to understand how the scientific tools are (re)created in time.

Relating ethnographic tension to Alfred Schutz (1999: 102–7), briefly, it could be mentioned that he made an excellent point that human beings live in multiple realities. Schutz underlined that within the everyday social world it is possible to detect a finite province of meaning—such as the world of dreams, fantasies, arts, politics, and sciences—with their own logical, temporal, bodily and social dimensions. When human beings "leap" into a specific province of meaning, some "objects" (material and conceptual) immediately become relevant, while others are treated as irrelevant. All provinces are regarded as systematic contexts of objects that are reciprocally related and made up of relevant connections to each other. When a person leaps between various provinces of meaning, it usually follows that he or she experiences many paradoxes or contradictions, primarily as there exists a tension between the worlds (see also Chapter 4). A popular ethnographic expression of these tensional experiences is *culture shock* or *rich points* (Agar 1986, 2004, 2013). Schutz makes his point that the person who enters a specific world usually gets shocked, but nevertheless accepts an attitude closely related to what seems to be meaningful (for example, a policy attitude in the world of policy) and relevant for social navigation. The notion of a Schutzian attitude understands a doxic belief in the being of the world, in which the person takes the surrounding reality for granted. In a Schutzian approach, the tension naturally locates in between provinces of meaning that nowadays seem to be threatened by various dominating innovation processes. Many policymakers and policy-linked researchers endeavor to bridge, harmonize or dissolve tensions between various worlds.

## Fieldwork and *breakdowns*

The fieldwork approach allows one to be creative and open-minded—that is, always ready to listen and change when encountering the voices and expressions of the Other (such as literature, artefacts, persons). As an ethnographer, one is continuously in the middle of those interpersonal and conceptual relations that generate research questions and scientific problems (Strathern 2005a: 7). Accordingly, research questions and ethnographic problems occur when the ethnographer encounters the Other. Whereas the analytical philosophical methodologist serves the reader with autonomous and artificial problems and questions (armchair anthropology), the ethnographer seeks to expose the relational context in which the complications emerged (Agar 2013). When

something cannot be brought into the ethnographic horizon of understanding and thus causes problematic research questions, we might consider using Agar's term *breakdown* (Agar 1986). In the following, I will briefly present the social setting regarding how I encountered two breakdowns, and how they contributed to the outline of the present chapter.

## Policymaking on innovation

When conducting (in)formal interviews and participant observations with Swedish policymakers in the Öresund region, I soon realized that they habitually spoke in terms of ”border crossing”, ”hybridization”, ”cluster”, and ”multiplicity”. Continuing the fieldwork, I was able to understand these expressions with the help of the Triple Helix policy model (for more detailed information, see Chapter 1), from which they draw organizational inspiration (the policy model will be discussed later). The policymakers' strategic mission was to develop an innovative social and economic region by integrating the state (policymakers), the university (researchers), and the industry (entrepreneurs). Concerning the Öresund region, there are several ongoing conferences, workshops, and projects whose aims are to disrupt or bridge modern boundaries of society/science/industry. For an ethnographer of policy—taking the boundary of institution for granted—this disruption or bridging of boundaries raises a question about the policymakers' attitudes: what kind of attitude are we dealing with and what is the logical, coherent meaning of these policy expressions? The question was a result of my first breakdown.

An interview with the vice president of Medicon Village Innovation AB (a well-established life science research park in southern Sweden) provided an initial understanding.


**Figure 6.1.** An online presentation of Medicon Village.

As the vice president works closely with the regional policymakers, I asked her about the possibility for life science researchers to cross modern institutional boundaries. She explained:

> Crossing boundaries is possible. Many of the life science researchers in this building are also teaching at the nearby university. We also have clinical physicians from the public hospital. They are *Grenzgaenger*, as one calls it in German. These border crossers are very important as they are the ambassadors of the future. They walk right into various worlds and show that it is not dangerous, show that it is okay. We would very much like to identify ourselves with those people since they are significant. They give birth to positive vibes.

As the research park in question is organized around the notion of Triple Helix, the vice president seems to celebrate the Grenzgaenger as "the ambassadors of the future". In similar discussions with other policymakers, I was frequently informed that boundaries were preeminent when fuzzy and entangled. In other words, clear and straight boundaries were problematic for them since they were more difficult to bridge, which could eventually exclude potential future innovations. It is within this policy attitude (Friberg and Englander 2019) that the conceptual notions of multiplicity, cluster, and hybridity become meaningful expressions for the regional policymakers.

When it comes to multiplicity, my argument is illustrated by an interview with a regional policymaker. We were discussing the possibility of a regional self-sustaining innovation system when he clarified:

> When all parts are involved and have a feeling that collaboration gives more, then 1 plus 1 becomes 5. Like multiplicity. We [policymakers] already have a strategic thought, but it is not always simple to operationalize it. We have the Research and Innovation Council, in which the regional universities/university colleges and the municipality are collaborating. Also, this is self-sustaining. People do not do it because they get paid or because there is a formal organization. People meet because they want to develop and multiply the region together. That is how it works. In line with the Triple Helix concept, there are Science Village Scandinavia and Medicon Village [see the previous quote]. This happens by itself without the interference of the state.

In the above quote, the notion of *multiplicity*, within the field of innovation policies, should be understood as follows: the number "one" (here signifying a single organization, institution, or involved people) is always potentially more than "one". This is especially the case when the number "one" collaborates with

other ”ones”. In this collaborative, lateral logic, ”one” is turned into ”two and a half”, which leads to the conclusion of ”five”. This kind of logic makes sense in a policymaking attitude with an explicit strategy concerned with regional economic and social development (see Chapter 4).

In a parallel manner to the logic of multiplicity, I made sense of the notions of cluster and hybridization. An excerpt from the interviews illustrates the point. When I discussed the organization of contemporary universities with another regional policymaker, he explained:

> I think we are moving forward. To be positive, I think those contemporary hybrid centers at the university are outstanding. Even though they are mostly crowded with researchers and students, these hybrid centers tend to have a more natural approach to the business world as well as public organizations. I think it is bloody good. I think many of these centers at the universities are a good thing. We [regional policymakers] are trying to do the same thing. Also, we have succeeded with cluster X. It is a collaborative cluster between university, industry, and society.

The Macintosh English dictionary (2018) defines cluster as ”a group of similar things or people positioned or occurring closely together”. This definition is in line with the social meaning I experienced within the world of innovation policy, which is also to be found within the Triple Helix model (see, e.g., Etzkowitz and Ranga 2010). Most policymakers manage to view or treat various “things” (such as university, industry, and the state) and ”people” (such as researchers/students, entrepreneurs, and policymakers) symmetrically. As things and people tend to be symmetrical for the policymakers working on innovation, they do not represent any specificities. Therefore, within the policy attitude, the rationale is that everything is potentially open for strategic hybridization practices—all for the sake of meeting the demands of eliminating tension.

## Symmetric ethnography

I participated in philosopher Annemarie Mol’s seminar series at the University of Copenhagen the same week as I came back from an intense period of fieldwork. Initially, I had intended to utilize her conceptual system to analyze the material collected from my fieldwork. However, I was perplexed by the remarkable similarities between Mol’s empirical philosophy (2002) and the organizational attitude among the regional policymakers. It seemed that Mol and the regional policymakers had a similar attitude. From a classic ethnographic horizon, Mol’s empirical philosophy thus seemed to be out of place because it was similar to that of policymaking on innovation. This was mainly the case when Mol presented and discussed the importance of multiplicity for ethnographers interested in the

”practices” of objects during fieldwork. As with the policymakers, Mol’s ”object” is potentially always more than one. Even though I could intellectually follow Mol’s arguments, I found it difficult to bring multiplicity into the ethnographic horizon of understanding policymaking on innovation. This complication seemed to depend on the historical, disciplinary modern horizon that takes for granted a logical boundary and tension between ”the knowledge creation among the informants in the field” and ”the ethnographic knowledge production among researchers in the university”.

Within the modern history of ethnography, there are several public debates concerned with the epistemological and ontological tensions and boundaries. One example is the distinction between emic constructs (descriptions and analyses expressed regarding the subject’s conceptual schemes and categories) and etic constructs (descriptions and analyses expressed concerning the ethnographers’ conceptual schemes and categories) (Headland et al. 1990). Another is the interpretive investigation concerned with the conceptual tension between experience-near (concepts used by the informants while expressing their thoughts, feelings, or fantasies) and experience-distant descriptions (concepts used by specialists—such as analysts, priests, or ethnographers—in their scientific or philosophical work) (Geertz 2000: 57). What we can learn from these ethnographic debates or considerations is that a modern horizon is constituted by straight lines (Ingold 2007) that create tensions between various objects and subjects.

Having encountered this second breakdown, I began to read a great deal of STS literature and discovered that many of these ethnographers took symmetry (here, similar to tensionless) for granted. The close readings also disclosed the linguistic fact that STS ethnographers’ conceptual schemes are often in harmony with policymaking on innovation. The concepts of hybridity and multiplicity constantly made an analytical mark in STS literature. Just as the notions of hybridity and multiplicity were the trend among the regional policymakers, they were influential among the STS ethnographers in their understanding and interpretation of the social everyday world. Hybridity and multiplicity as useful conceptual objects were to be found among both worlds: policymakers on innovation and STS ethnographers. This kind of similarity might not come as a total surprise considering that some of the leading STS ethnographers are affiliated with various European innovation policy centers (see, e.g., Akrich et al. 2002a, 2002b; Callon et al. 2011).[30]

The two breakdowns—with policymaking on innovation and symmetric ethnography—made me increasingly concerned with the relation between the

[30] To my knowledge, no scholar has yet written the political history of the relationship between the emergence of Science and Technology Studies and European innovation policy.

policymaking of innovation and the contemporary ethnographic project on innovation. How would it be possible to visualize tensionless ethnography? After several attempts in writing, I decided to draw inspiration from Gestalt psychology, that is, the notion of figure-ground organization (Rubin 2001; Englander 2019), which is essential for recognizing and making the phenomena meaningful through vision in context. Therefore, the outline of the chapter follows the idea to present three processes, with a final comment on the appearance of the tensionless ethnography as a meaningful figure. These comments will, then, be drawn together and discussed in the final concluding remarks.

# Three processes

The three overlapping processes—STS ethnography, innovation policies, and the Mode 2 society—to be presented here are not to be assumed as having a direct causal effect upon the tensionless ethnography. The point here is modest as I consider tensionless ethnography to appear as a meaningful figure against the ground of the three processes (i.e., as in a figure-ground relation). In other words, the three processes considered here constitute the movement toward an overall purpose as upheld and dogmatically maintained (i.e. taken for granted) within a social world—a contextual ground in which the phenomenon ”tensionless” appears.

The first process is characterized by leading representatives of contemporary STS research: Annemarie Mol, Michel Callon, Yannick Barthe, and Pierre Lascoumes. The second process is a brief presentation of an intertwined vertical slice of European innovation policies—geographically concerned with Europe as a whole, a national viewpoint of Sweden, and a regional position of Öresund. The final third process concerns literature about the collaboration between science, policy, and industry. This kind of literature, describing the transformation of the modern society and the contemporary knowledge production, (un)intendedly interacts with the concrete policymaking in the European societies (cf. Strathern 2004a).

## STS ethnography

In *The Body Multiple* (2002), Mol discusses her fieldwork in a Dutch university hospital, where she participated and observed the diagnosis and treatment of atherosclerosis. The book is textually divided in a binary manner, with an upper text and a lower text. The upper text presents the empirical material (such as descriptions and interviews), while the lower text is more philosophical in character (reflections and relevant literature). This textual, binary division

reflects the disciplinary approach that Mol claims to represent: empirical philosophy.

As the book title indicates, Mol focuses on the multiplicity of reality. She strongly argues that there are no passive objects that can be viewed from various positions or perspectives; instead, social scientists ought to understand the creation and disappearance of objects by focusing on those practices through which the objects are manipulated. All objects are thus more than one. When it comes to atherosclerosis, this *disease* is practiced or done differently in many different places by different actors. As an ethnographer with focus on practices, Mol suggests that she is doing praxiography rather than ethnography because her gaze is mainly focused on the practitioners' hands. In this context, she concurrently points to the problematic use of the concept of performativity as it draws attention to constructivism. Therefore, to avoid being associated with social constructive studies concerned with diseases, Mol makes use of the concept of enactment. Again, this is done by putting practices at the center of her fieldwork.

This work of empirical philosophy, multiple realities, and praxiography raises the question of how it all hangs together with other social science research studies. Mol's answer: "This is a philosophical book of a specific—that is, empirical—kind. It draws on social scientific, and more notably, ethnographic methods of investigation. But it does not just import these, it also mingles with them" (2002: 7). Mol's main goal is to develop ethnographic research studies, especially those concerned with medical objects. According to Mol, there are two steps to consider. First, social scientists are to contemplate how to bring forward the experiences of the patients. Second, social scientists ought to focus on the physicians' medical language and its relation to a specific perspective or position. Based on these two steps, Mol develops a third step, which is a praxiographic focus on practices, materiality, and event—an understanding of how the disease is enacted. This is her ethnographic contribution to the social science field of medicine.

Furthermore, in Mol's work, the reader is presented with the process of collecting material during fieldwork:

> Jeannette and I didn't undertake such an ethnography [following the patient]. But it is still possible for us to get to know some of the things we would have seen if we had followed him in his daily routine. We can listen to Mr. Gerritsen as if he were his own ethnographer. Not an ethnographer of feelings, meanings, or perspectives. But someone who tells how living with an impaired body is done in practice. (Mol 2002: 15)

The above statement shows contradiction. Mol claims that her primary focus is on *practices* (to understand how the object is manipulated and multiplied), but then she writes that she listened to *speech* about practices. Mol and her assistant seem to trust the Others' speech of practices; they assume that the informant (patient) is his own ethnographer. However, as well known in ethnographic research, people are always inconsistent or contradictory in their everyday lives. (For example, today we find environmental activist researchers who fly around the world to spread their ”green message” in various academic conferences). Therefore, the ethnographer cannot assume that the informants' verbal expressions conform to their actual everyday practices (Berliner et al. 2016). Later in the book, Mol's fieldwork approach reappears:

> The descriptions given here are mine, not those of Mrs. Tilstra, Mr. Romer, or any other patient. And even if my descriptions are informed by what patients tell about events, I only rarely follow patients in this book. [...] It is informed by my own observations and by attending primarily to the words of another group of lay ethnographers: medical professionals. (2002: 26)

As with the patients, the medical professionals are treated as lay ethnographers, which means that Mol partially trusts the Others' words of practices. This fieldwork attitude stands in contrast to a praxiographic approach. Mol seems mainly to be occupied with a deductive, empirical, philosophical attitude of bringing forward the concept of multiplicity, as the main conceptual object for ethnographers.

In Acting *in an Uncertain World: An Essay on Technical Democracy* (2011), Michel Callon, Yannick Barthe and Pierre Lascoumes examine the possibility of transforming controversies concerning, for example, asbestos, nuclear waste, and avian flu into productive dialogues to bring about ”technical democracy”. As such, the authors ethnographically explore how experts, citizens, and politicians come together in hybrid forums to create a new form of democracy. Decisions made in these hybrid forums dissolve the modern boundaries between various domains and between subjects such as specialists, laypeople, and politicians. Callon et al. start by claiming that we have gone from what was previously seen as a risk society to an even more uncertain world. As scientists and other specialists are today incapable of providing a list of exactly defined possible worlds, based on rational knowledge and decisions, the issue is more one of uncertainty than risk. The authors argue that hybrid forums, as solutions to uncertain problems, are powerful situations for exploring and learning about possible worlds. These learning situations are more concerned with hybridizing various dimensions of the debate into a ”robust solution” rather than generating

a “good solution”. How, then, would Callon et al. like to organize these hybrid forums?

They stress that we should repudiate two fundamental mechanisms—asymmetry and official modern representativeness—when attempting to create productive hybrid forums. The mechanism of asymmetry, they argue, cements the dualistic relationship between specialists and laypersons in that the former are enlightening the latter while lay knowledge receives no attention. Echoing Bruno Latour’s (1990, 1993) and John Law’s (1994) criticism of modern dualistic organizations and institutions, Callon et al. maintain that we need to hybridize both forms of knowledge, not treating either type of knowledge as more valued than the other. Concerning the second mechanism, official modern representativeness, Callon et al. emphasize that it is closely connected to various groups’ perceptions of each other. Instead of bringing forward classic modern representatives, such as union leaders and local councilors, the group in question should find new representatives who more clearly articulate their demands. It follows that these new representatives would have the opportunity to change positions and develop new identities, meaning that the actors involved in hybrid forums would be more aligned with each other. By using the symmetric mechanism and new representatives, Callon et al. claim that a group can advance (for example, in controversies) beyond simple oppositions constituted by defenders or selfish interests. The gap separating specialists and laypersons can be considerably reduced when hybrid forums take part in a challenge, a partial challenge at least, to the two great typical divisions of our Western societies: the division that separates specialists and laypersons and the division that distances ordinary citizens from their institutional representatives. These distinctions, and the asymmetries they entail, are scrambled in hybrid forums (Callon et al. 2011: 35).

In yielding contrast to Mol, Callon et al. are more explicit about their attempt at taking a departure from a tensionless attitude—with the central sign of hybridity. In general terms, it seems reasonable to state that STS ethnography takes a departure from symmetrical relationships with the help of two main conceptual objects: multiplicity and hybridity, a symmetric processual ground against which we could identify tensionless ethnography as a meaningful figure.

## Innovation policies

As the European Commission (EC) increasingly responds to various global challenges and uncertain competitions, policymakers have developed a strategy of increasing innovations in Europe. The innovation strategy is presented in ”Europe 2020: Flagship Initiative Innovation Union”:

> At a time of public budget constraints, major demographic changes, and increasing global competition, Europe's competitiveness, our capacity to create millions of new jobs to replace those lost in the crisis and, overall, our future standard of living, depend on our ability to drive innovation in products, services, business and social processes and models. (EC, 2010: 2)

This is the document that policymakers in the Öresund region usually use to support their everyday practices (as later will be shown). No matter the geographic position, most policymakers are encouraged to realize Europe's full potential by ensuring that it has excellent academics, entrepreneurs, and businesses. The policymakers' arguments and practices are motivated by the imagination of the global competitive changing economy.

Accordingly, the EC policymakers are launching a significant number of political ideas concerned with the notion of developing and strengthening the collaborative relationship between education and research. The underlying assumption is that a closer and more robust connection between education and research will increase the process of innovation in European societies. Once this relation is established, the policymakers believe that it will lead to the establishment of world-leading universities, which in turn will attract top-talent persons from other parts of the world. The universities are then ripe to produce as well as to collaborate with innovative entrepreneurs within the borders of Europe. In other words, the EC wants to encourage collaboration between science and business to produce more innovation out of research—to bring "ideas to the market" in a more direct manner. The development and market deployment of innovations is the best way of solving societal challenges, according to EC policymakers; they claim that the Innovation Union will find solutions to uncertain issues of energy supply, climate change, demographic changes, health, and security. These general viewpoints are considered necessary to repair public finances, create new innovative social and economic growth (such as job opportunities), and get Europe back on track financially, especially important in an uncertain global world.

With these policy issues in mind, it is possible to see the connections between the arguments of contemporary people living in an uncertain world, as described by Callon et al. (2011), and the political innovation strategies of the EC. In light of these similarities, it is further relevant to illustrate some innovation policy connections to The Organization for Economic Co-operation and Development (OECD).

The policy document OECD "Reviews of Regional Innovation: Regions and Innovation Policy" (OECD 2011) poses two central questions: (1) How can regional actors support innovation that is relevant for their specific regional context, building on their human and physical assets? (2) How should national

innovation policies consider this regional dimension, the local nodes in global networks? Based on these two questions, it seems that the OECD's innovation policies are principally concerned with regional knowledge accumulation. However, the document also states that long-term sustainable economic growth is not merely to be seen with the accumulation of physical capital (i.e., investments in machines, buildings, and roads):

> Ultimately, long-term sustainable growth will depend on knowledge accumulation, either embodied, in smarter capital, a more efficient use of natural resources and a better educated labor force, or disembodied, for example, as codified in patents, copyrights or trademarks. Knowledge accumulation depends on investment in education, including tertiary education, training and lifelong learning, accumulated scientific knowledge and technological advancement, and on social and institutional development. (2011: 15)

The quote underlines the importance of knowledge accumulation, which is followed by an argument that there is a "consensus that long-term economic growth" is achieved through investments in and collaboration between education, markets, business, science, and technology. This general argument of the OECD corresponds rather well with the ideas presented by the EC.

Within the context of this new innovation policy, Sweden has taken a great deal of inspiration from the OECD's regional innovation policy. As Magnus Eklund (2007) clearly shows, participants in the Swedish innovation system have been active and strategic recipients of the OECD's innovation approaches. Eklund writes, "the innovation system concept clearly stands out in Sweden because of the official legitimacy bestowed upon it by the creation of VINNOVA" (2007: 16). The establishment of the Swedish Governmental Agency for Innovation Systems (VINNOVA) is of particular importance, I argue, since it is through this process that we better can understand the regional policymaking. Against the backdrop of the various debates of the 1990s concerning guidelines for Swedish research, policymakers emphasized the importance of a national innovation system. The policymakers strongly argued for a unified system, and four challenges were identified as particularly crucial to strengthening the Swedish innovation system:

- First, the need for industrial and innovation policies to improve the Swedish development capacity.
- Second, the need for hybrid collaboration between the public and private domains.
- Third, the need for collaboration between individuals across boundaries.

– Fourth, the need to reinforce the analysis of the innovation system. (Kempinsky et al. 2011)

The identification of the four challenges can be comprehended in relation to the research bill ”En politik för tillväxt och livskraft i hela landet” (A policy for growth and vitality throughout the whole nation) (Näringsdepartementet 2001/2), which highlighted that the Swedish research system was fragmented since it consisted of many different authorities. Hence, the politicians maintained that the current organizational form of research was splitting-up resources and thereby resulted in ineffective collaborative issues. The purpose of the research bill was to create a new organization for research funding that made it possible to concentrate efforts in key scientific areas, foster collaboration between research and development, and improve the dissemination of information about the research and its results. The politicians wanted to encourage collaborative interdisciplinary studies, increase the quality demands by reinforced governance, sharpen the focus on basic research, and create a more efficient organization for applied research to support the Swedish innovation system. As a result, 11 agencies merged into four research funding agencies, one of which was VINNOVA. What is of principal interest in these processes is that VINNOVA began to promote the Triple Helix in Sweden. As such, Sweden became the first country in the world to have a public authority directly support the Triple Helix model—that is, the collaboration between universities (researchers), industries (entrepreneurs), and states (policymakers) (Etzkowitz 2008; Kempinsky et al. 2011; Eklund 2007; Hall 2020).

In line with the EC’s Innovation Union strategy, described above, the Öresund regional strategy aims to increase innovation in the future. The Skåne Research and Innovation Council (FIRS) and Sounding Board for Innovation in Skåne (SIS) launched an international innovation strategy (2011). The regional vision is to become “Europe’s most innovative region in 2020”, which is to be done by collaborative networks. The policymakers strive to create an attractive innovation culture constituted by creativity, openness, and diversity. The prerequisite for realizing their vision is the collaboration between businesses, universities, and the public sector (the Triple Helix model), which the policymakers believe will solve future global challenges.

Taking the vertical slice of European innovation policies together (see Figure 5.3), the policymakers’ main point is to encourage increased collaboration between the worlds of policy, science, and industry. Increased collaboration between different worlds would mean that this ground includes ethnography (science) with policy and industry, something that will make us reflect upon tensionless ethnography as an appearing meaningful figure.

## The Mode 2 society

The most trendsetting book in this policy context might be considered to be *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies* (Gibbons et al. 1994). As suggested in its title, the aim was to explore the contextual changes in which knowledge is produced. These contextual changes concern the production of knowledge in science and technology, as well as in the humanities and the social sciences. According to the authors, a new mode of knowledge production—Mode 2—has lately emerged alongside the traditional one, that is, Mode 1. The emerging Mode 2 operates within a context where problems are set outside the traditional disciplines in the university. Therefore, the authors claim, Mode 2 is considered as transdisciplinary rather than as multidisciplinary. The traditional knowledge production in Mode 1 is done within a disciplinary cognitive setting, while Mode 2 knowledge is created in a transdisciplinary socio-economic context. Consequently, this new form of knowledge production questions traditional institutions and organizations, such as universities, governmental research centers, and corporate laboratories. The authors underline the social fact that Mode 1 refers to a knowledge production aligned with classic, hierarchical ”scientific” norms and practices. In contrast, Mode 2 differs in the sense that the knowledge producers do not share the same scientific norms and practices, primarily as they operate in the transdisciplinary, heterarchical heterogeneous context. In Mode 2, knowledge is the result of a broader sphere of interest, in which it is regarded as applied and useful for industry, government, or society as a whole. The problem at hand to be solved is negotiated and present from the beginning as various actors are included—as an expression of the complex context of application. Transdisciplinarity consist of four characteristic features: (1) an evolving framework to direct the problem-solving, (2) evolving theories, methods, and practices, (3) communicative diffusion of the results, and (4) a dynamic knowledge production. It follows that the organizational structure in Mode 2 is understood as heterogeneous, especially as the problem-solving team and sites change and evolve randomly. Hence, research teams are not institutionalized since the Mode 2 knowledge is produced in a great variety of organizational forms. Furthermore, as research problems cannot be answered in scientific terms alone, reflexivity and social accountability increase among the actors involved in the team. Regarding the quality control in Mode 2, this is conducted in a context of social, economic, and political interests rather than in line with a peer review system, as in Mode 1.

Against the backdrop of the publication of *The New Production of Knowledge,* some of the same authors later wrote *Re-Thinking Science: Knowledge and the Public in an Age of Uncertainty* (Nowotny et al. 2001). This latter volume can be regarded as a prolongation of the reasoning of Mode 2, mainly as it focuses on

the social transformations and the impact on science. Instead of focusing on the transformation of knowledge production, the authors pay great attention to broad social and historical transformations and their relation to science. Simply put, they argue that the contextual transformation means that the new society ”speaks back” to science. Consequently, we are present in a social, economic, and political context that demands that science ought to produce reliable, socially robust knowledge, concurrently as it forces science to become more mediating, collaborating, and consulting. The authors claim that the socio-historical transformations in modernity have resulted in a co-evolution of science and society. The processes of co-evolution entail that the traditional, modern boundaries between the state, markets, private and public worlds, art, and science become bridged or dissolved. In contrast to the modern creation that consisted of various worlds, according to the authors, the contemporary era is comprehended as a bridging or dissolving of boundaries between various distinct worlds. As expressive of the contemporary era, it is possible to observe the emergence and development of the scientist-entrepreneur—easily navigating between public and private worlds. As a result of this social traversing, it is further conceivable to understand how the academic ethos is changing—from an autonomous scientific ideal to a scientific social accountability. The authors claim that the co-evolution of science and society will increase the potential useful knowledge production in the future. Therefore, they explicitly argue for a model of science-society relations that creates Mode 2 objects, a policy model that expresses an alignment of interests to develop welfare systems and increase involvement in environmental concerns. Robust knowledge is constituted by respecting the complex context, infiltration of social knowledge and empirically grounded knowledge and verified knowing. As the authors declare that we need to re-vision science in this new context, they also reason that we are now established and present in a Mode 2 society.

The desire for Mode 2 knowledge and innovations seems to be based upon the notion that we are living in increasingly uncertain societies. The clarification of uncertainty finds itself in many modern contradictions, inconsistencies, and ambivalences that affect the horizon of the future (Nowotny 2008). Hence, the future is imagined as an open and uncertain horizon in the context of the Mode 2 societies (Nowotny 2016). This form of uncertainty is the underlying structure for the increasing ambition for more and better robust knowledge. With increased knowledge production, policymakers and politicians believe that one can better predict the future. Consequently, the collaboration between science and society, which generates new forms of applied knowledge and innovations, is considered as a way of transforming uncertainties into certainties.

In sum, the performative literature on Mode 2 society mainly argues for a co-evolution of science and society to develop new social robust knowledge in an imagined uncertain era in desperate need of innovations. Against this ground of

bridging or dissolving the world of science (here, including the ethnographic project) and the everyday social lifeworld, it becomes possible to perceive tensionless ethnography.

## Disengagement

In this chapter, I have claimed that ethnographers in the world of innovation seem to lose the critical self-reflexive, productive tension intrinsic in the classic ethnographic project. To make this claim, I primarily drew upon my ethnographic experiences and then related them to three overlapping processes: STS ethnography, innovation policies, and the Mode 2 society. The main analytical idea, here, was to illuminate how tensionless ethnography appears as a meaningful figure against the ground of the three processes. A brief overview of the processes is as follows: (1) leading STS ethnography claims that we ought to take departure from *symmetrical* relationships in terms of multiplicity and hybridity, (2) innovation policies encourage *collaboration* between various worlds such as policy, science, and industry, and (3) the performative literature of Mode 2 argues for the *co-evolution* of science and society in order to develop new social robust knowledge in an imagined contemporary uncertain era. What these three processes have in common is that they intend to bridge or dissolve the tensions between different Schutzian (1999) provinces of meaning, or worlds. It follows that we (ethnographers, as well as the Others) are now embraced by one common-sense world to produce robust knowledge and thus innovation for the contemporary Mode 2 society. It is against this processual ground, I argue, that ethnographers could cultivate their critical self-reflexivity regarding tensionless ethnography in the context of innovation policy: scrutinizing their own scientific tools (Bourdieu, 1997).

Tensionless ethnography is generative to think through for ethnographers as it extends the conversation about the ”representation crises” (Clifford and Marcus [1986] 2010; see also Marcus and Fischer 1986; Geertz 1988), not least as this evokes the following question: how do we write the culture of innovation? It might be the case that ethnographers could re-capture their gaze of self-reflexivity (cf. Scholte 1972; Salzman 2002) and argue with Schutz’s multiple realities (1999), that is, ethnographers ought to re-establish an ethnographic, theoretical province of meaning in which they are disengaged in the practical world of innovation. Disengagement (see Bourdieu 1997) can here be understood as ethnographers striving towards the critical understanding of the attitude of innovation rather than attaining a non-reflexive, taken-for-granted innovative attitude. Furthermore, as Marcus (1998: 20) noted, multi-sited ethnography finds its disengagement when visiting different sites, particularly as the ethnographer could avoid being loyal to a specific local group of people (here, understood as

”policymakers”). Placing oneself in between various sites of innovation would generate possibilities to avoid the traditional moral identification of sympathy with one group of people. The tensional in-between position seems to be the future place for a critical and self-reflexive ethnography in the context of the powerful innovation processes.

# 7 DIALECTICS[31]

## Anthropological critique

In his work, "Critical anthropological thought and the radical political imaginary today," Ghassan Hage (2012) puts forward the ethos of primitivist anthropology—as a premise to be maintained for critical anthropological

[31] This chapter is a short version of "Modernism is the New Radical Alterity: Exploring the Dialectics of Anthropological Critique in Modernity" which appeared in (2022) *Kritisk etnografi—Swedish Journal of Anthropology*.

thoughts. Hage treats the anthropology of Eduardo Viveiros de Castro (2014) as an avant-gardist for critical anthropology because it is used for radical politics. Throughout his argumentation of the need for new and experimental ideas, Hage follows the trope that the "world could be otherwise" than how modern Westerners typically think in their everyday lifeworld. Consequently, he argues, the anthropological discipline is in a prominent position to make the modern world aware of living in "minor realities," which involves this display "take[s] us outside ourselves to see how we can be radically other to ourselves" (Hage 2012: 295; see also Hage 2013, 2015; Strathern 2020: 174-178). However, it appears that Hage attacks contemporary anthropologists who conduct fieldwork in non-modern, as well as in modern, societies. He explains,

> While there are still many anthropologists working on non-modern cultural forms within relatively remote tribal cultural formations, only a minority are interested in seeing in their findings something that speaks to the societies and the modernities they come from. On the other hand, the number of anthropologists working on modern 'all kinds of things' are rapidly increasing, but not many see a critical continuity between their work and the early anthropological tradition. They mainly see the relation as one of method, ethnography, and a general interest in 'culture.' (2012: 304)

As a reader, one could, imaginably summarize Hage's confrontation that many contemporary anthropologists circumvent the application of the intrinsic potential of ethnographic critique (see Chapter 1), which results in a tensionless monologue rather than a tensional dialogue (see Chapter 6). As he tarries with the last kind of anthropologist who works in the modernities, Hage finally claims, "[…] the anthropologies that deal with the modern world can only lose their anthropological critical edge if they are to abandon the ethos of primitivist anthropology and distance themselves from it." (2012: 306)

Hage's sophisticated reasoning reveals the dialectics of anthropological critique—constituted by the tension between modernism and primitivism in ethnography. While modernism, here, is understood as the aesthetic of rational straight lines that differentiate institutional and conceptual domains (see Ingold 2007), primitivism is considered as the aesthetic of creative network relations that connect institutional and conceptual domains (see Mauss [1925] 1972). In this sense, Hage seems to claim that the tensional relationship between modernism and primitivism is a prerequisite for criticism. For example, when modern ethnographers encounter and experience other primitivist worlds, they are equipped with potential critical thinking about politico-organizational matters of modernity. Hence, Hage's argument echoes a long disciplinary tradition that tentatively takes a departure from Stanley Diamond's (1974) anthropological,

dialectical project that is, criticizing inside Western socio-political issues with the help of conclusions drawn from research from the outside peripheries.

However, in the new emerging context of innovation politics, Marilyn Strathern (2000, 2004a) has pointed to the problem of pursuing the dialectics of anthropological critique concerning the new imperialistic tendencies "at home" (within public universities) in their attempt to strive towards *one* world. As the intentionality of innovation politics is that of acquiring control over other worlds, such as the university world and the industrial world, it could be comprehended as an extension of power and influence through imperialism (see Chapter 5). With this in mind, How can we maintain the dialectics of anthropological critique in the context of the imperialistic innovation politics? The overall purpose of this chapter is to explore the dialectics of anthropological critique by placing it in a dynamic, capitalistic modern context (Friedman 1994, 1996, 2019; Florida 2004a, 2004b) and to provide expression of its logic of inversion (Marx and Engels 1947: 14; see also Chambers 2013). In other words, the chapter is meant to be a largely suggestive statement for contemporary anthropologists who attempt to explore the possibilities for an ethnographic, dialectic critique in the context of innovation politics.

# Background

To answer the central question of how to maintain the dialectics of anthropological critique in context, it is useful to outline a (back)ground of how modernity is transformed (Friedman 1996) and its close relation to the emerging ethos of creativity (Florida 2004a) as situated in the new knowledge economy. This relational background thus attempts to show that modernity is not one coherent stabilized unity; instead, I argue, today we ought to observe it as a dynamic unit (based on modernism) with embedded potential units *within* its own structure (such as primitivism, traditionalism, and post-modernism) that are occasionally expressed in various political projects.[32] Consequently, as modernity is changing, so is the dialectics of anthropological critique, primarily because of the tension constituting the relation between modernism and primitivism.

[32] Within the anthropological discipline, researchers have noted that this form of findings and reasoning—units (here, primitivism) within the unit (here, modernism)—appears to make a contribution to a post-plural approach (Holbraad and Pedersen 2017; Candea 2017). However, this is not the place to develop the notion of post-pluralism, as it demands more textual space than is available in this chapter.

## The dynamic modernity

The anthropologist Jonathan Friedman (1994, 2019; see also Lash and Friedman 1992) has written extensively on how to comprehend global phenomena in a world system framework. In "The Implosion of Modernity" (1996), Friedman takes a departure from various identity projects around the world: The attempt to re-establish the Hawaiian nation as a self-governed political unit, the return of territory to First Nations tribes in Canada, the endeavor of Native American tribes to become self-supporting and thus independent of the United States of America, and the Sami's strive towards a potential "nation" within the Swedish nation-state. Friedman's analytical point is that these phenomena of identity are meaningful if anthropologists with a broad global perspective become involved. According to Friedman, the ethnification, as a global course of events, is not random. In addition, these phenomena are not to be understood as mere expressions of various states' promotion of "multiculturalism," or increased global forms of communication. Instead, Friedman points out that here we are dealing with a hegemonic decline, which means that the centralized model of identity, modernism, is broken up and provides the way for the expression of various forms of "multism." Friedman's model could thus be grasped as an overall clarification (or context) of the recent anthropological-theoretical development concerned with multiculturalism, multinaturalism, and multinationalism (see Fischer 2014).

Friedman (1996; see also Rata 2013) emphasizes that the structure of modernity, as an identity space, is to be considered as the foundation in all attempts to understand and explain the contemporary. Within this space, modernity is the dominating identity—based on the resolution of previous holistic structures of identities. Modernity constitutes an ego that appears flexible in the sense that there are always other potential identities and existences. Consequently, modernity forms a differentiated world in which the private becomes authentic and the public is taken as artificial or constructed. The ego is something that one is developing or creating, which implies a tendency and openness to change. It is the principle of trial-and-error that lays the ground for change and development—one goes on and becomes better, wiser, and more efficient. According to Friedman, change and development are key to understand that "thing" we call modernity. Modernity as an identity space, however, is dependent on external conditions, that is, one needs a direction towards something (e.g., the belief in a certain future). There must exist a place to begin and proceed towards and a past that is left behind. This spatial and temporal imagination appeared as a result of Western expansion in the late 14$^{th}$ century, which later resulted in a modern social and economic European center with alternative peripheries. In a world system model, we recognize this formation as the center–periphery structure, significant for the modern epoch (cf. Ekholm

Friedman and Friedman 2011). The main point here is that modernism is dependent on real expansion to maintain itself as a strategy; it needs a certain future of social and individual mobility.

As the economic and political conditions of modernism are failing, the consequences are expressed as "a crisis." In the crisis of modernism, there is no longer any reliable and certain future or social mobility, according to Friedman (1996). Hence, the notion of development will be likened with a catastrophe, and the search for alternative identities will begin. The crisis in the modern world system is about a crisis of accumulation in the center, which means decentralization of the capital. The increasing welfare in the center might lead to the question that the cost of production is too expensive when compared to the underdeveloped peripheries. The relocation of production from the center to peripheries means cheaper human resources, lower taxes, and more favorable economic conditions. During such a time, according to Friedman, the "people" in the center attempt to relocate the capital in various forms of fictive investments, speculations in properties, bonds, and stocks. I argue that today we can understand these economic phenomena as venture capitalistic processes in which people are willing to invest in "things that do not exist", as characteristic for the notion of innovations.

Friedman (1996) emphasizes that during the crisis of modernism, it becomes exposed to various confrontations. As advocated by Friedman, modernism could be reduced to an identification that stands in contrast to nature (pleasure, childishness, and obsceneness) and culture (superstition and traditional absolutism). By outlining a four-panel figure, Friedman contrasts modernism with traditionalism, primitivism, and post-modernism. When it comes to *traditionalism*, he argues that this is the most common reaction to modernism, as it speaks for culture (traditional authority, order, and accepted codes for meaning and values) and turns its back against nature (lack of control in an anarchistic world of pleasure). Regarding *primitivism*, he explains that it embraces nature (creativity, innocence, earnest intimacy) while standing in opposition to culture (power and authority according to traditions). *Post-modernism*, in turn, is both pro-culture and pro-nature (both considered to be the carrier of traditional wisdom and human creativity). In a time of crisis, according to Friedman, various conflicts emerge between the four directions. The latter three directions ought to be considered as potential spaces of identification that are usually suppressed by modernistic identities. It follows then that the Western hegemonic crisis is the crisis of modernism, which means that the modern identity space implodes. Consequently, those identities that previously were restricted become liberated.

One could consider Friedman's emphasis on the social fact that contemporary, modern, Western societies consist of potential multiple political projects, which means that modernity is not a simple, fixed, homogenized dialectical political unit, especially as there are potential political units within the political units, such

as the case with primitivism. In light of such reasoning, I will raise a concern for the emergence of creativity and its association with a political form of primitivism.

## Creativity as a form of primitivism

Sociologist Richard Florida's seminal work, *The Rise of a Creative Class* (2004a), reveals the emergence of a new social and economic formation in modernity. Supported by statistics and interviews, his overall thesis focuses on the perception that human creativity is the driving force in today's knowledge of economic development. Even though Florida's thesis has been questioned and debated in various situations (see Florida, 2004b), I can see similarities in his expressions that I found in my own fieldwork (which I will return to momentarily). Florida writes:

> Thus creativity has come to be the most highly prized commodity in our economy—and yet it is not a "commodity." Creativity comes from people. And while people can be hired and fired, their creative capacity cannot be bought and sold, or turned on and off at will. This is why, for instance, we see the emergence of a new order in the workplace. (2004a: 5)

Today, the everyday lifeworld is permeated by the creative ethos. The transformation of everyday modern life is most visible with the emergence of the creative class (such as scientists, engineers, entrepreneurs, educationalists, artists, and designers). In this new creative form of economy, Florida emphasizes that this class lives a different lifestyle. Florida mentions four points: (1) workplaces are undergoing a sort of soft control rather than strict modern authoritarian governance, as it attempts to liberate creativity; (2) the identity formation is creative in itself as work, home, and leisure blend; and (3) the time frame is changing, which means that the boundaries between various modern domains become dissolved. The modern liquefied domains depend on the matter that creativity is not something that can be switched on, respectively shut off, and (4) the form of communities is encouraged to become creative. Taken together, according to Florida, our contemporary era is not technological; instead, it is a socio-cultural era constituted by creativity. We might consider Florida's statement in alignment with Friedman's (1996) general notion of primitivism as a political project, especially as it fosters creativity and thus rejects modern authoritarian power and control. In this sense, creativity in primitivism is about the possibilities to hybridize or intertwine modern opposed institutions and concepts. For example, this form of creativity is free to mix the private domain of business with public institutions such as the university (known as the

"entrepreneurial university") as long as it creates uniqueness and innovations for the future public good in the welfare society.

The transformation of modernity from power and control to human creativity can be seen in how it expresses itself in the economic world. Florida, thus, discusses the creative ethos (understood as the fundamental character of culture) in the formation of everyday society. Even though the creative ethos has been seen in modern history, Florida points to the social fact that creativity is essential for how we work and live today. Hence, that is why policymakers and politicians would like to harness creativity in various forms. Among other things, policymakers and politicians attempt to set up various units and institutions in the hope of being able to control and direct the creative ethos.

Florida refers to Joseph A. Schumpeter's ([1934] 2017; see also McCraw 2010) work on creativity and entrepreneurs as essential for capitalistic, innovative development. It is from creativity that we can develop innovative "knowledge," which, in turn, becomes today's basic economic resource. The aim of these creative processes in the knowledge society is for the outcome of innovations that can generate added value (see Gibbons et al. 1994; Nowotny et al. 2001). In this sense, which can also be seen in my own fieldwork, policymakers are loaded with a mission to create a social structure of creativity, a structure that is characterized by three aspects: (1) new systems for technological creativity and entrepreneurship, which are often connected to research in universities because they accelerate the processes of establishing new firms and create commercial innovations; (2) new efficient models of producing goods and services, which usually involves employees contributing with their creative ideas as well as their physical labor; and (3) a broad socio-cultural, regional milieu beneficial to various forms of creativity (Florida 2004a).

Here, the socio-political milieu described by Florida is to be considered as supporting the fundamental ecosystem, in which creativity as a form of primitivism takes root and flourishes in the innovation political world.

## Ethnography, theory, and puzzle

The relation between ethnography and theory is seldom pre-determined during fieldwork. As noted by Michael Agar (2013), fieldwork has its abductive logic since the ethnographic material consistently interacts with the theoretical concepts throughout the whole analytical process. One could argue that the disappearance of the contradictions between the ethnographic material and the analytical concepts gives the ethnographer an indication that (s)he has reached a reasonable point from where it is possible to explain the phenomenon concurrently as new puzzles appear (Agar 1986).

In the following section, I illustrate how an ethnographic "problem" emerged when I studied innovation politics and how it connected to theory—an analytical process that later constituted my concerns with the dialectics of anthropological critique in context.

## Innovation political expressions

While observing the relatively novel expressions of political innovation in the context of the Öresund region, as an ethnographer, I struggled to make a general sense of various situations. However, as the sensemaking process seemed to take a departure from the structure of relevance that belongs to the modern academic world, an ethnographic "problem" emerged.

At the Medicon Valley Alliance's 2015 Annual Meeting in Copenhagen, Denmark, Danish entrepreneur Lars Tvede served as a keynote speaker.

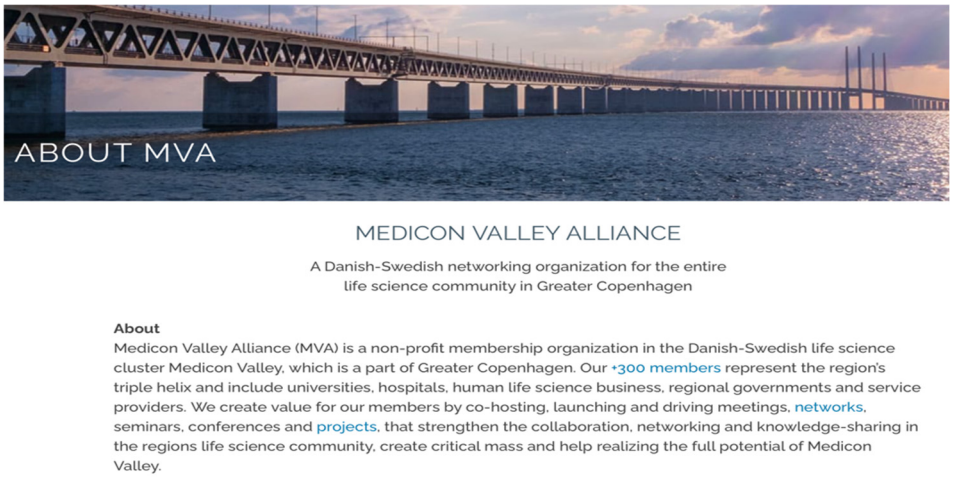



**Figure 7.1.** An online presentation of MVA.

The main reason for inviting Tvede was because he recently published *The Creative Society: How the Future Can Be Won* (2015). As most people in the audience associated with life science research in the public and the private sector, the expected context was that of innovation politics. Life science might be considered to include a large number of scientific traditions studying living organisms such as plants, animals, and human beings. The knowledge production in life sciences is commonly done "in-between" public universities and private industries. Policymakers and politicians treat life science as a creative way to improve life in society, notable when it comes to agriculture, medicine, and health. Policymakers consider the collaboration and the hybridization between

two different modern domains—the public and the private—as the mediums for creating more life science types of "innovation" (see Chapter 3).

As participants, we received a free copy of Tvede's book upon arriving at the Annual meeting. While sitting in front of the scene, Tvede entered with a big smile while the chairman beside him claimed, "We need creativity and innovations to increase economic growth in the Öresund region." The chairman's statement implied that we all could learn something from listening to the keynote speaker, and continued by emphasizing, "Two words are important here, that is, innovation and economic growth. Take your ideas and foster them for the market. Such an act depends on creativity." In this situation, Tvede began to explain some "surprising things that he has learned about innovation," and he further enlightened us about how global creative thinking emerges from Western countries. Hence, his book is about Western creativity. While reading about creativity, he argued, he saw a pattern beginning in the 16th century which became crystallized in the Western dominance of the world in the 1950s. How then, he asked, was it possible for the West to dominate the world even though they make up only ten percent of the world's population? Tvede's generalized answers refer to "Western de-centralization processes," which mean that more ordinary citizens were able to use their creativity in their working lives. For Tvede, creativity is one of the most unique and fundamental forces as part of the progress of civilization, as it solves difficult problems while creating new opportunities. With creativity and innovation, economic growth follows naturally. He declared, "Centralization kills creativity!" and exemplified this by referring to the Roman Empire's attempt to control the socio-political environment using centralization, which led to its own demise. The creative society should be understood in contrast to the static model of society (see Tvede 2015: 384-399). In such a creative society, according to Tvede's narrative, people think of their destiny in terms of control and that they are in control of their own destiny. In contrast, citizens in a static society tend to think in terms of limited resources on the planet. In contrast, in the creative society, people think of themselves as being capable of changing the world and can use their own creativity as the ultimate resource. In the static society, citizens look for moral guidance from of their history and see themselves as victims if things go wrong. People in the creative society reason that the "best" is yet to come, that is, as oriented toward the future.

Later during the so-called expert panel discussion, the participants listened to Swedish life science coordinator and social democrat politician Anders Lönnberg, who stated, "The public and the private ought to collaborate to make more creative innovations in the future." Regarding life science research, he argued that the university world and the world of business ought to collaborate more intensely. He further claimed,

> We need a better innovation fund—trying out creativity and innovations in new ways. Every political party in Sweden agrees that the creative Triple Helix model is the future. No matter what party succeeds in grasping political power, the Triple Helix will prevail since it is not political.

In contrast to a centralized model (in which the state controls the worlds of the university and industry) and the laissez-faire model (in which the university, the state, and the industry collaborate to a certain extent across explicit boundaries), the Triple Helix model undertakes hybrid and collaborative relations between the three worlds (see Chapter 1). The Triple Helix model is used by policymakers and politicians to generate creativity, and thus, innovations to increase social and economic growth. We could understand such expressions in terms of a distinct shift in governance of the public sector, that is, from neo-classic economic theory with a focus on competition (as the main driving force of innovation) to economic theories concerned with collaboration (as the main driving force of innovation) (see Hedensted Lund and Vaaben 2014; Vaaben 2014b). In contrast to the New Public Management principles that follow neo-classic economy (with its focus on *homo economicus*, self-interest, market mechanism, and investment in existing things), the recent New Public Governance (NPG) principles take their departure in the altruistic collaborative human being, shared interests, the idea of creativity, and investment in things to come (Wiesel and Modell 2014). By using the NPG principles, politicians and policymakers imagine that they can create synergy effects in the context of the new emerging economy based on producing and selling knowledge. The key actors in these settings are universities (scientists), industries (entrepreneurs), and the state (policymakers). The collaborative hybridization of the three actors is explicated in the logic of the expression of the Triple Helix policy model.

Hence, the ethnographic "problem" arising in these situations was the expression of a seemingly primitivist innovation political world—the preoccupation of creativity, the pushing for collaborative hybridization of separated domains, and the creation of innovations for the uncertain future—all within the modern everyday lifeworld.

## Theoretical inspiration and a new puzzle

To make sense of the ethnographic expression presented above, I had to capture it with a specific *world*, especially because this innovation political world expresses its objectification, intentionality, and attitude in contrast to that of the aesthetics of modernism.

As such, by treating the innovation political project as an expression of its world, I took theoretical inspiration from Alfred Schutz (1962: 207–45), who clearly states that the modern everyday lifeworld consists of multiple worlds. For

example, the world of art, the world of social science, the business world, and the political world. Schutz's (1962) main point was that every world has its structure of relevance, which gives meaning to specific conceptual and material *objects* in well-defined situations. For example, in the world of social science "truthfulness" and "the law of non-contradictions" could be considered as two meaningful and relevant objects in seminars and peer review processes, but this might not be the case in the political world, where we find "lies" and "inconsistency and contradictions" in public situations (cf. Weber 1977). The difference between the world of social science and politics could be understood as a matter of diverse *intentionalities*, that is, directions towards the distinctive state of affairs. Furthermore, the main differences between the separated worlds could be comprehended in terms of two distinct *attitudes* (a doxic belief in the being of the world, in which the person takes the surrounding reality for granted).

With this social phenomenological theory (conceptual relations) at hand and in combination with the ethnographic expression above, the innovation political world could understand its own intentionality as directed towards the notion of an uncertain future. If considering this statement at the backdrop of Friedman's (1996) reasoning on the implosion of modernity as an identity space, the imagined future is that of uncertainty. Consequently, the politicians and the policymakers embrace a creative and innovative horizon to make certain the uncertain future (see Nowotny 2008, 2016), here, predominantly with the help of life science. With an increasing number of innovations, many innovation policymakers and politicians believe that they can control better and predict the future—they consider creativity and innovation to be the best way to transform uncertainty into certainty (Godin 2015, 2017; Godin and Vinck 2017). Moreover, the ethnography demonstrated the relevance and meaningfulness of the objectification of "creativity" (see Florida 2004a, 2004b) in the innovation political world. As I have suggested in Chapter 4 the innovation political world is constituted by lateral thinking, which is a form of creativity. As the lateral thinking stands in contrast to vertical thinking (i.e., congruent with the modern thinking in logic and mathematics), it follows that policymakers and politicians can avoid modern conceptual and institutional boundaries, such as the separation of private and public domains. In other words, when policymakers imagine or utilize creative, lateral thinking, there is no resistance to the hybridization of the public university (with its associated scientific researchers) and private industry (with its related business entrepreneurs). As can be seen in the ethnographic material, the hybridization finds its creative logic in the Triple Helix model and could be perceived as imperialistic politics, that is, making *one* world out of three distinctly differentiated worlds. Additionally, the ethnography exemplified the attitude in the innovation political world, which may be interpreted as an expression of primitivism, particularly as it celebrates creativity and anti-authoritarian modern conceptual and institutional boundaries.

Having established the notion of an innovation political world, with a distinct attitude of primitivist aesthetics *in* modernity, evoked an anthropological feeling of being in an analytical, inversed position and was something that puzzled me considerably. As trained anthropologists, we are socialized towards the assumption that Western political projects (the inside) are constituted by modernism while the Others are socio-organizational expressions of primitivism (the outside). The first-mentioned political project, we learn in textbooks and during lectures, is imperialistic in the sense that it extends its power and influence over other worlds by colonialization (Stocking 1994). In these situations, modern anthropologists who study other "primitive" worlds become analytically equipped to critique their own "modern" everyday lifeworld, which implies the dialectics of anthropological critique, as suggested by Hage (2012). But then, what are we supposed to do with the dialectics of anthropological critique when an inside imperialistic political project (such as innovation politics that attempts to extend power by hybridizing the world of public university with the world of private business) is constituted by the attitude of primitivism? My first thoughts went to Stanley Diamond's (1974) anthropological project for inspiration, but then I was reminded of Hage's (2012) updated view concerned with critical anthropological thinking.

# Critical anthropological thinking

Because Hage (2012) is interested in the nature of the critical anthropological tradition, he initially searches for the general notion of social scientific critique. He points to the similarities between critical sociology and anthropology, as both disciplines associate themselves with a type of criticism that challenges the taken-for-granted socio-cultural order,[33] that is, a form of an imperialistic politics. Hage treats critical thinking as constituted by a dialectic between "the outside" and "the inside" concerning inter-personalities, cultures, societies, and states. By transcending such, this dialectic will thus enable us to reflect upon the present context of politics, which consequently makes it possible to "move outside ourselves." When Hage (2012: 288) reaches the specific critical nature of the anthropological discipline, he claims:

> It is well known that anthropology as a project began as a study of human cultures that are situated outside the dynamic of our capitalist modernity. This was so even if, paradoxically, it was that dynamic itself that was behind the very possibility of

[33] It should be noted that William Y. Adams (1998: 1) understands the role of anthropology among the social sciences as "the systemic study of the Others, whereas all of the other social disciplines are, in one sense or another, studies of the Self."

> the anthropological encounter between modern and non-modern peoples. And even if that very process was part of making what was outside modernity inside modernity. It is in this sense, as many have argued, that we can say that early anthropology captures what was outside modernity in the very process of it becoming inside modernity, with anthropology itself being part of that very assemblage of capture.

In this historical–anthropological situation, the dialectics of the modern inside and the primitive outside presents itself in the distinction between "modern and non-modern people." Hage's approach echoes a Marxist–anthropological tradition (Dumont 1992; Wolf 1999, 2001) in which the anthropologists' missions are about to expose the socio-cultural processes that imprison human beings in the West by using the primitives as a mirror. By showing the Others as less alienated, it provides an image of the primitives in ourselves, which creates new political possibilities for ourselves. Hage's critical project is thus also an expression of the classic logic of inversion—the dichotomy of the true inner essence and the distorted outer appearance (Marx and Engels 1947; see also Chambers 2013).

As a prolongation of this form of anthropology, Hage appears to consider capitalistic modernity as a singular inside unit while placing non-modernity as outside plural peripheral cultures. As a logical consequence of this reasoning, the modern anthropologists are required to be involved in studies of the primitive "radical alterities" (see also Baudrillard 2008), such as the case of Viveiros de Castro's (2014) studies of Amazonian Indians.[34] Thus the knowledge of cultural alterities spontaneously works as a transcendent criticism when brought back home to what appears to be a singular unit of modernity. Hage writes,

> One should immediately note here how this critical anthropological knowledge differs from other disciplinary critical thought. It differs not just in the fact that it takes us outside of ourselves culturally rather than temporally, socially or psychologically but also in the way it posits a relation between the outside-of-ourselves space it takes us to and the space in which we are dwelling. (2012: 289)

Perhaps it is reasonable to outline Hage's general notion of critical anthropological thinking, as shown in figure 7.2.

[34] According to Viveiros de Castro (2014: 40), anthropology ought to "assume its new mission of being the theory/practice of the permanent decolonization of thought."

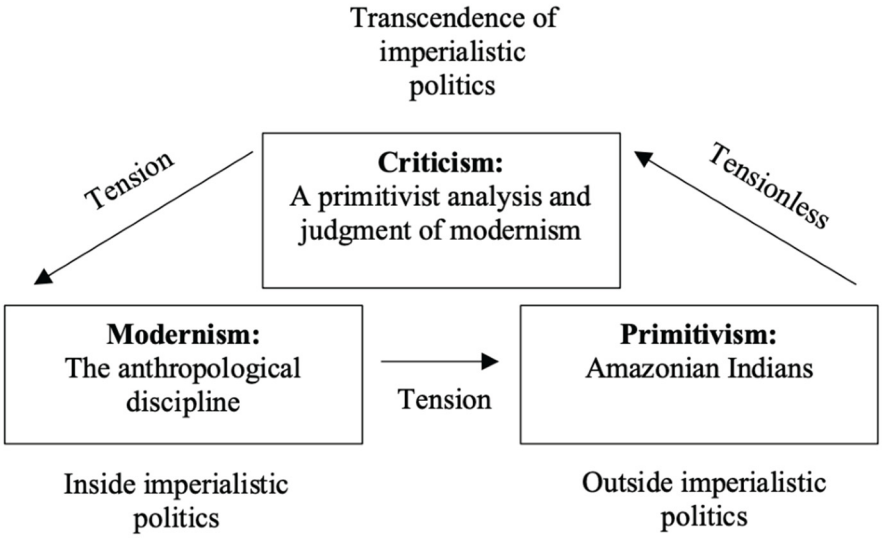



**Figure 7.2**. Hage's dialectics of anthropological critique

Thus Figure 7.2 shows Hage's structural reasoning—the dialectics of anthropological critique—constituted by three spaces: modernism → primitivism → criticism. To maintain an anthropological critique in the context of innovation politics, I argue, would demand that ethnographers ought to invert the ideological content in the space of the inside and the outside, as follows in Figure 7.3, which also implies that the modern anthropological discipline logically becomes the radical Other (positioned on the outside).[35] Hence, the result of this inversion is primitivism → modernism → criticism: an inversion that signifies a modern anthropological critique of the primitive, imperialistic innovation politics.

[35] Moreover, it should be mentioned that this inversed structural reasoning can give us an explanation of the relationship between researchers in the field of Science and Technology (STS) and their close affiliation to innovation political centers: both are critical of modernism (the aesthetic of rational straight lines that differentiate institutional and conceptual domains) as they take a departure from primitivism (the aesthetics of creative networks relations) (see Law 1994; Latour 1993; Callon et. al. 2011). As I have argued in Chapter 6, anthropologists ought to write the political history of the relationship between the emergence of STS and European innovation policy instead of simply embracing their ideology as inspiration for the contemporary development of the theory of science. To become truly radical in the contemporary thus seems to take a departure from modernism. What can we say, Western imperialist processes seem to be the ultimate trickster as they partly transform from modernism to primitivism.

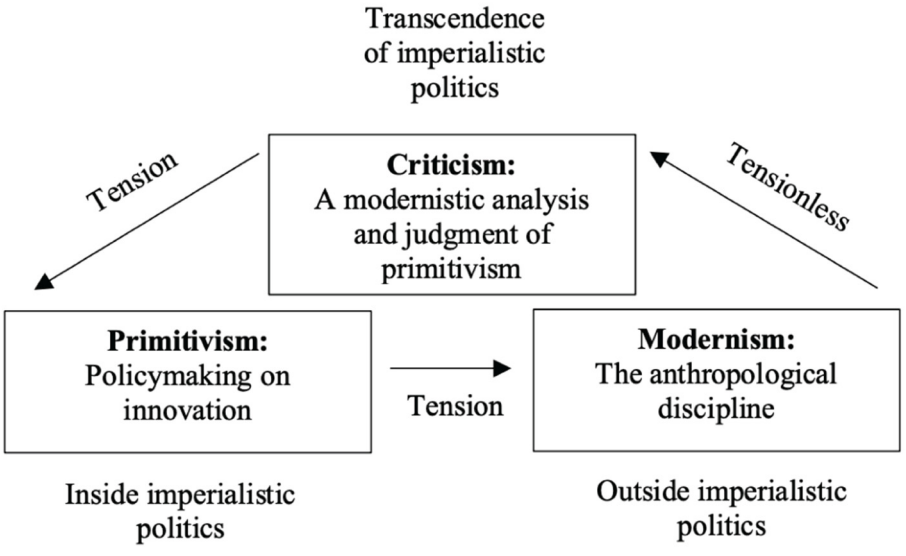



**Figure 7.3.** The maintenance of anthropological critique in context

To argue that the modern anthropologist is the radical Other in the context of innovation politics might be considered as controversial at the backdrop of our disciplinary, imperialistic legacy (Stocking 1994). However, the point here is to explore the possibilities for a Hageian dialectic, critical anthropological research space in which we can observe our imperialistic tendencies from the outside—becoming the radical Other to ourselves.

# A logic of inversion in context

In this chapter, I suggested that ethnographers ought to inverse Hage's (2012) structural reasoning concerned with the dialectics of anthropological critique in the context of innovation politics *if* they would like to maintain a critical attitude about new emerging imperialistic tendencies (Strathern 2000a, 2004a).

To validate my suggestion, I outlined a background of dynamic modernity that gives the expression of political ideologies other than that of modernism (Friedman 1996; see also Rata 2013). Hence, I focus on primitivism as an expression of the ethos of creativity in the emerging modern knowledge economy (Florida 2004a). As modernity is changing, the ideology of modernism seems to transform into primitivism (among other things), which can be observed in the expressions of innovation politics. With the help of my ethnography in the Öresund region, I illustrated how innovation political expressions—such as the

promotion of the creative ethos, hybridization of private and public domains, and innovations for an uncertain future—make sense before the backdrop of a dynamic modernity. Moreover, I demonstrated how my encounter with the innovation political world also laid the ground for the origination of the puzzling thoughts concerning the dialectics of anthropological critique.

From the contextual background to my fieldwork observations, I then deepened the discussion of Hage's structural reasoning concerned with the dialectics of modernism and primitivism, which make possible a third space of criticism. To maintain the scope of criticism, in the context of the innovation political world (that is constituted by a form of primitivism) thus demanded a logic of inversion (cf. Marx and Engels 1947; see also Chambers 2013). The inversion at hand meant a shift of the content in the space of the inside and the outside in which modern anthropologists become the "radical Other." To paraphrase Hage (2012), in the context of innovation politics, we ought to put forward the ethnos of modern anthropology—as a premise to be maintained for critical anthropological thoughts.

# CONCLUDING REMARKS

The main argument following the disclosement of the world of innovation politics is its structure of relevance (in a Schutzian sense) constituted by a new form of ideology and structural power: an emerging interacting political context in which the anthropological world becomes encapsulated by political processes. Consequently, I argue that the anthropological discipline needs to explore escape routes away from the political context to understand the contemporary conditions—as an opportunity to be able to take us outside ourselves. My argument departs from an anthropological situation where historical and contemporary elements intersect in my experience and interpretation of the innovation political world. The historical element I have in mind here is that anthropological discipline ought to avoid being in the service of any imperialistic context, which demands a continuously critical and self-reflective point of view and practice. As implicated in the chapters, the contemporary element is my general experiences of ideology and power during fieldwork in the innovation political world.

As declared in the Introduction, the book is organized as an expedition between the innovation political world and the anthropological world. For that reason, the first three chapters were mainly concerned with the innovation political world. These chapters were followed by a bridging chapter that intended to show some ethnographic learning from the innovation political world by analyzing the same. From this position, the last three chapters had their primary focus on the anthropological world.

In Chapter 1, I analyzed the textual and practical harmonization processes of the Triple Helix model in the context of Öresund. The harmonization processes imply that the entrepreneurial university (with its affiliated researchers) is expected to act as a venture capitalistic engine, while the innovative state (with its affiliated policymakers) attempts to hybridize the private and the public, concurrently, as the related business (with its affiliated entrepreneurs) operates in networks beyond boundaries. The Triple Helix's ideal goal is a continuous, harmonizing transformation process towards one everyday lifeworld. Such a

political ambition makes sense in the formation of the new knowledge economy connected to regional development. In such a situation, I argued, ethnographers ought to remind themselves that they are organically situated in the emerging entrepreneurial university, which means that the harmonization processes may be seen as a threat to the intrinsic potential critique in the classic ethnographic project. Chapter 2 illustrated that collaboration, as an essential ideal part of the innovation political world, might be seen as a lively organizational assembly in becoming. Rather than an organic system, collaboration (in its operative meaning) is considered constituted by specific processes—intensification, stabilization, destabilization, and legitimation—that are not always in harmony with each other in the socio-political everyday lifeworld. Chapter 3 was concerned with the (re)making of the flow of knowledge in the third space, that is, between the private and the public research domain, in which mediator companies usually operate. Mediator companies are considered the ideal, hybridized symbols of the innovation political world, especially as the mediator researchers are making the flow of knowledge in the hybridity of commerce and sociality.

The bridging Chapter 4 showed the similarities between the innovation political world and the anthropological world when encountering contradictions. In this Chapter, I began by studying lateral thinking in the innovation political world and then utilized it when doing interviews with the policymakers during fieldwork. This form of ethnographic approach is known as a recursive, affirmative form of anthropology, as a way to avoid contradictions between the ethnographer and the Others.

In Chapter 5, I suggested that ethnographers in the higher educational settings (as closely connected to the innovation political world) could begin to think about policy-centrism instead of ethnocentrism. Hence, the ethnographers in the contemporary higher educational setting seem to be at the risk of scaling and rating the everyday socio-material lifeworld with the support from categorial innovation policy ideals. Chapter 6 illuminated how tensionless ethnography appears as an influential figure against the background of the three overlapping processes: STS ethnography, with its idea of symmetrical relationships; innovation policies, with an approach of multiplicity and hybridity; and the Mode 2 society, with its notion of co-evolution of science and society. I argued for a critical, self-reflexive ethnographic approach to investigate our own tools' transformation in the context of innovation politics. In the last chapter, I claimed that critical anthropology, in the context of modernity, in crisis, ought to think about how to re-establish the dialectics of anthropology to investigate and to understand the imperialistic tendencies at home, that is, the innovation political processes.

With this brief summarized knowledge in mind, I will deepen the discussion concerned with ideology, structural power, and escape routes in the context of

innovation politics. However, before doing so, I would underline that the specific phenomenon in each chapter will be regarded as interrelated constituents of other phenomena or structures of relevance. Hence, the specific phenomenon here is not to be seen as autonomous, lacking any relations to other phenomena or structures of relevance. Instead, in line with a Heideggerian sense, phenomena are "things" appearing themselves to perception, which logically would mean that other things will appear if we connect the things we already know. In other words, the advantages of writing a book are the analytical possibilities of connecting the specific things to more general things or structures of relevance, such as the case of ideology and structural power in the innovation political world.

## Ideology and neo-corporativism

In this situation, I assume that ideology is a unified scheme (Wolf 1999, 2000; see also Friberg 2013), which implies that it is made into a whole constituted by specific parts. The ideology I have in mind here is that of a revived form of corporativism. To avoid becoming too entangled in a complex political-theoretical discussion concerned with the "right" definition of corporativism, I want to make the point that this ideology underlines the importance of observing society as an organic body: a wholeness with integrated institutions and professions that makes the welfare society function in a specific direction (Larsson 1990). Hence, corporativism is closely related to the notion of the human body (the Latin *Corpus*). The main idea is that welfare society will peak when each institution and profession contribute to the greater common good. Corporativism signifies a harmonic economic tripartism that involves collaborations between various interests (such as the government, private organizations, and public institutions) to establish economic and social development.

It should be noted that I am not the first anthropologist to argue that European nation-states in crisis are about to adopt a corporatist ideology. As previously noted by anthropologist Bruce Kapferer (see 2005a, 2005b, 2010, 2017, 2020), there are strong tendencies that we today are witnessing the formation of a new state with the strong support of an underlying corporatist ideology. However, even though Kapferer's political-theoretical ideas are very inspiring, he seems to lack ethnographic material supporting his overall argument. As an anthropological reader, one does not encounter any everyday lived experiences in Kapferer's texts, nor does one get any sense of the policymakers' world, from which they attempt to organize the surrounding institutional and professional setting. In such a manner, Kapferer appears as a political theorist, rather than an ethnographically grounded anthropologist. Consequently, it seems he cannot explore corporativism as a transformed ideology to fit a modern state in crisis.

For that reason, I ask the following: What is the constitution of neo-corporativism? I connect this question to the previous chapters summarized above, which means that I will reduce and refine each specific phenomenon to work as constituents of neo-corporativism as a unified scheme (ideology).

I suggest there are seven constituents of neo-corporativism in the context of innovation politics. As innovation politics strive towards making one common world, the involved persons promote harmony and collaboration between different institutions and professions. It follows that their ideal flow of knowledge takes place in between distinct worlds—a third production space in a hybrid sense. Such an innovation political rationale follows lateral thinking that generates new creative ideas beyond wrong or contradictory modern statements. This ideal belief system encourages policy-centrism, which implies a modus operandi to scale and to rate the socio-material environment from innovation policies. In this centric manner, the archetype social relationships are to be seen as tensionless, in which ideas and qualities are without conflicting demands or implications, such as the case of symmetric, hybrid, or co-evolutionistic relationships. Consequently, the idealistic nature of neo-corporativism is anti-dialectics in the sense that it encourages tensionlessness. Hence, these seven elements—harmony, collaboration, third production space, lateral thinking, policy-centrism, tensionless, and anti-dialectics—are the essential constituents of the innovation political neo-corporatist ideology supporting a structural power.

## Structural power and dialectics

When discussing structural power (Wolf 1999, 2000; see also Friberg 2013), I take for granted that this ought to be understood to organize or orchestrate the setting in a specific direction. With this structural power in mind, I would like to observe the ideology of corporativism (as presented above with its seven constituents) as the essential strategical tool to organize or orchestrate the contemporary, modern setting away from dialectics. In other words, the policymakers and policy-linked researchers now can utilize the structural power to allocate or govern specific institutional objects and professional subjects for a particular purpose: the generation of innovations for the benefit of the economic and societal harmonic wholeness.

As we know it in this book, dialectics is about the existence or actions of opposing worlds, knowledge, concepts, objects, subjects, practices, and positions. As these oppositions become hybridized in the contemporary setting, I claim that the critical dialectical approaches become neutralized or marginalized. The dialectic critique is neutralized because the people find themselves inside the societal organism with no existing opposing worlds. The logic of dialectics in which political or industrial statements (thesis) meet counterarguments

(antithesis) by public researchers that leads forward to new insights (synthesis) has very little space in the innovation political setting. In the hands of the innovation political people, the structural power is the marginalization of dialectics between various worlds since it focuses on a future monolectic world. The modern university world (Gadamer 2009), with its mission to criticize the political and economic worlds and enlighten citizens about the new conditions, is now marginalized. Instead, we are witnessing the establishment of the entrepreneurial university as a central part of the innovation political world, and this implies fewer possible escape routes.

## Escape routes and anthropology

When discussing escape routes, I refuse the ideology of neo-corporativism, and structural power related to the innovation political world (see also Strathern 2006). The art of escape appears difficult since the structural power supported by neo-corporativism, most likely, tries to control any act of escape. One could think of how the structural power agents control escape routes by redirecting them, for example, by institutional financing research concerned with "innovations" that lay the ground for fast individual career tracks in the emerging entrepreneurial university world. Today, as shown in this book, there are several examples of how European and national innovation policies impact today's university world, which follows that those anthropologists who float with the innovation fashion are most likely to be dominant, while concurrently dominated in time. As those "scientific fashionists" are attached to the contemporary, they seem to disappear with it, especially as they lack critical tools to escape the socio-political situation. However, as some social scientists argue:

> There is nothing heroic about escape. It usually begins with an initial refusal to subscribe to some aspects of social order that seem to be inescapable and indispensable for governing the practicalities of life. In other words, the very first moment of subversion is the *detachment* from what may seem essential for holding a situation together and for making sense of that situation. Escape is a mode of social change that is simultaneously elusive and forceful enough to challenge the present configuration of control. (Papadopoulos et al. 2008: xiii-xiv. My italics)

The anti-heroic escape is about detaching oneself from what makes sense of a particular situation. Even though the innovation political world seems to create highly relevant and meaningful situations (particularly as it expresses itself as a social and economic robust solution of the uncertain future welfare society), we should not forget the existence of other forms of meaningful settings. Thus imagining and encountering other forms of meaning implies detachment, which

would not surprise most anthropologists, who are used to making expeditions between different worlds. As noted in this book's introductory part, to detach oneself from the innovation political world is to presume a theoretical attitude: to disclose what is taken for granted within the practical attitude. Maintaining a theoretical attitude in front of the desk detaches oneself from the practical-political attitude, which is busy manipulating various objects and subjects that offer possibilities and resistance in the field. However, then, how would an anthropological escape be performed?

As we can understand detachment as an act of separating oneself from something or finding an alternative route, the first thing to do is to strive outside the powerful neo-corporatist ideology in the innovation political world. As anthropologists detach themselves from the organic ideology, they will not have any immediate relevant and practical function in the innovation political world. Such an escape route would likely make it easier to create anthropological expeditions between various worlds—in a Malinowskian-ethnographic spirit. Hence, it becomes possible for the anthropologist to bracket the taken-for-grantedness in the practical world in order to disclose social constitution in the theoretical-anthropological world. Furthermore, such an approach would mean (re-)establishing a dialectic process between various worlds and structures of relevance: an escape route away from the structural power. In the "expedition-between" different worlds, the anthropological, dialectical critique seems to be situated.

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1. *An Expedition Between Innovation Politics and Anthropology* – Torbjörn Friberg

In ***An Expedition Between Innovation Politics and Anthropology,*** Torbjörn Friberg systematically discusses and analyses several specific political phenomena, which are later drawn together to deliberate the general notion of ideology, power, and possible anthropological escape routes in the context of innovation politics. Drawing on fieldwork in the innovation political world (policy model, mediator company, networks, meetings, conferences, events, documents, observations, and interviews), Friberg reconsiders and develops the work of Laura Nader, Manuel DeLanda, Marilyn Strathern, Martin Holbraad, William Graham Sumner, Pierre Bourdieu, Ghassan Hage, and Eric Wolf. In line with this reasoning, Friberg considers the innovation political world as constituted by a new form of structural power and ideology: a political context in which the anthropological world becomes encapsulated by political processes.

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