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Contents

CHAPTER 1

The Innovation Society

Current society is an innovation society and an entrepreneurship society, but only in a rather superficial sense. In the name of progress, mostly understood as economic growth but also sustainable development, innovation and entrepreneurship are viewed as the solutions to all of society's problems and challenges. Meanwhile, signs abound that real innovation and real entrepreneurial efforts are less valued in society and the economy, that the real or deeper contributions of innovation to our societies are seen as less important than the appearance of innovation, and that both innovation and entrepreneurship are treated as ends in themselves, or only means to achieve economic growth.

Innovation—real innovation—has shaped the world as we know it, and created the unprecedented wealth and wellbeing of current society. There are many horrors in this world that can be blamed on exploitation of people and natural resources in the pursuit of technological and social innovation for the benefit of the few. There are, likewise, grave economic injustices that are hard to separate from the largely innovation-based economic development of the Global North, and several examples of innovation being used by dictators and oppressors against the security, dignity and privacy of people. But overall, there can be no doubt that innovation—the "process of constantly discovering ways of rearranging the world into forms that are unlikely to arise by chance" (Ridley 2020: 2)—has turned the world into an enormously safer, freer, richer, and more

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enjoyable place now than 50, 100, or 200 years ago. Imagine what innovation can do if it is allowed to continue to be this source of astonishing improvement. And imagine the losses we will suffer if we leave it stuck in emptiness.

This book argues that there are imminent risks of the latter. Due to society's obsession with innovation, entrepreneurship, and economic growth, too much energy and resources are currently spent on *appearing* to be innovative and entrepreneurial. The result is emptiness. The book outlines a number of possible causes and likely consequences of this simultaneously tragic and laughable predicament, and some alternatives in the shape of a deeper and more reliable understanding of what innovation is and how it can contribute to society.

The Problem

In recent years, several stories of fake and meaningless innovation projects have reached the news, with venture capitalists spending hundreds of millions of dollars and entrepreneurs propelled into stardom, but with little or no value created. The fraudulent medical technology company *Theranos*, founded in 2003 by Stanford University alumnus (and Steve Jobs admirer) Elizabeth Holmes, managed to raise hundreds of millions of dollars of venture capital for its proposed automated and rapid blood testing technology, before it was exposed as a sham by investigative journalists in 2015–16. The company was subsequently dissolved, and several criminal charges were pressed against Holmes and other company executives (Carreyrou 2018; Jeske 2020). In 2016, the laughably over-engineered *Juicero* juice press was introduced on the market, initially sold at a price of $699 (later lowered to €399, in response to slow sales), and with subscription plans for small bags of fruits and vegetables, whose origin and storage life could be tracked online. The Juicero was said to exert four tons of pressure, enough to lift two Tesla cars, but was exposed in a viral news story in 2017 as over-engineered, over-priced, and arguably even useless—the machine produced juice with a quality allegedly indistinguishable from hand pressed juice. The Juicero project had similarly managed to raise over a hundred million dollars in venture capital from, among others, Google Ventures (Schaefer and Hallonsten 2023). The Swedish spaceship-like *Uniti* car, the brainchild of Lund University student Lewis Horne who formed his startup in 2016, initially used crowdfunding to secure cash flow, but eventually also attracted venture capital. The company produced a series of prototypes, promising

that it would design, manufacture, and sell an electric car with a revolutionary design, built with 100% renewable materials and featuring an advanced human-machine interaction system and autonomous driving functions. Uniti, however, repeatedly postponed delivery of its first car and switched designs and locations for production several times. In early 2022, it was exposed as a fraud in an investigative journalist coverage and it went bankrupt (Atefie 2022).

These are but three examples of shiny and dazzling seem-to-be innovations of a type that current society tends to celebrate, and that venture capitalists are prepared to invest a lot of money and expectations in, which turn out to be empty or useless. Judging from extant literature, the examples are perhaps extreme, but not unique: There is a lot of evidence of innovation gone astray, with enormous amounts of money and prestige invested by both private and public actors in projects and ventures with little or no provable usefulness, and sometimes complete emptiness—an alluring surface, but no substance (e.g. Jones and Spicer 2009; Harford 2011; Hasu et al. 2012; Erixon and Weigel 2016; Gaglio 2017; Greenspan and Wooldridge 2018; Douthat 2020; Wennberg and Sandström 2022).

But it takes two to tango. The misguided entrepreneurs of *Theranos*, *Juicero*, *Uniti*, and all other similar companies, are not in this pursuit on their own. Governments and organizations spend vast amounts of money and effort on boosting innovation in all kinds of shades and flavors, from the European Commission's billion-Euro "flagship programs", via national and regional subsidiaries to specific scientific and technological areas, to training programs and venture capital for individual entrepreneurs, in the hope (or belief) that this will be of benefit to the economy.

There seems to be no limit to what policymakers and pundits expect that innovation can achieve. Above and beyond renewal and economic development on long term, innovation is today a "panacea" (Godin 2012: 37; Pfotenhauer and Jasanoff 2017: 784), generally viewed as an "institutional and individual road to salvation" (Brattström and Wennberg 2022), and the "ultimate solution to present welfare related problems in the West" (Gripenberg et al. 2012: 1). Innovation has therefore become "a policy obsession" (Pfotenhauer 2019: 191), and its alleged importance is treated as an axiom for policymaking (Sveiby et al. 2012b: 250). In many of the resulting policies and investments, innovation has ceased to be something real, that contributes to society and the economy by making substantial improvements to life in various respects, and has instead become the theme of a new "worldview or belief system" shared by policymakers, bureaucrats,

communication officers, consultants, and even academics. The result is the spread of "innovationism", an "invisible and naturalized" ideology, and an "accepted, self-evident, future-oriented-and collective-way of imagining a better future" (Valaskivì 2012: 150). Similarly, entrepreneurship has "become a mantra that has worked, paradoxically, by repetition", with the same platitudes repeated by business gurus and "echoed by politicians seeking economic cures" (Jones and Spicer 2009: 2).

The result is, sadly, an abundance of misplaced initiatives and empty talk. For example, the European Union's 2000 *Lisbon strategy* stated that the EU was to become "the most competitive and dynamic knowledge-based economy in the world" by 2010 (European Union 2000). Commentators have noted that the strategy was built on unrealistic promises and a deficient understanding of how regions and nations develop, and that its layout was aimed at meeting specific targets defined in a number of shallow indicators, rather than working purposefully to achieve real change and progress (Tausch 2010; James 2012). This notwithstanding, the EU has moved on from the Lisbon Strategy to even more ambitious programs, like *Europe 2020*, which appears as something of an invasive innovation policy framework program that takes over the agenda and subsumes other (important) policy areas like research policy, education policy, environmental policy, and industrial policy under its aims (Nauwelaers and Wintjes 2008: 286; Flanagan et al. 2011: 703; Lagendijk and Varró 2013: 115). National equivalents are just as grandiose, and just as superficial. In 2012, for example, the Swedish government launched its "innovation strategy" with the purpose to "contribute to a climate with the best possible conditions for innovation in Sweden with year 2020 in sight" (Swedish Government 2012). But although thousands of representatives from academia, industry, and government reportedly were invited to chip in, the strategy itself is "pretty thin and diluted" (Hall and Löfgren 2017: 311). Similar "innovation strategies", containing mostly empty phrases with little or no connection to any real innovative capacity or effort, exist in many countries and on several levels of government (Pfotenhauer et al. 2019: 895; Pfotenhauer and Jasanoff 2017: 784). In order to back up these strategies with practical and concrete action, in most countries, specifically designated and considerably sizable innovation agencies have been set up with the mission of distributing public funding for innovation and keeping track of innovation policy and execution, which usually means producing reports, brochures and marketing slogans.

But the governmental obsession with innovation and pursuit of unrealistic expectations and promises of sustainable economic growth is not restricted to hot air and glossy brochures. The cross-disciplinary field of innovation studies, usually lacking a critical perspective and sometimes very difficult to distinguish from governmental or corporate branding efforts, has boomed and now has a home in academic research units in most universities. In the borderland between academia, business consultancy, and public administration reside a seemingly self-sustaining class of "innovation experts", occupied with formulating, executing, and evaluating innovation policies and innovation-promoting initiatives with doubtful real significance for the economy or broader society, but nonetheless funded with millions of Euros and dollars every year (Wisnioski 2019). Their activities extend to various innovation *events*, where innovation experts hold workshops and mingle with entrepreneurs, academics, elected officials, and public servants under visionary slogans and imaginative rhetoric, as well as massive wasteful spending on whatever new technology or imaginative future model for the sustainable organizing of local and global society. The purpose of "innovation events" where "canonized preachers profess their faith" (Valaskivì 2012: 150) is quite clearly not to innovate—the absence of any hands-on activities at such gatherings is conspicuous—but to provide opportunities for "a form of collective endorsement of belief" in innovation (Andersson Cederholm and Hall 2020: 1416). Such events form a key ingredient in the maintenance of a collective identity among the many consultants, academics, politicians, bureaucrats, and corporate actors that make up the innovation elites who live off the promise that the innovation obsession entails, that these elites actually can contribute to economic development (Hall and Löfgren 2017: 314).

It doesn't stop there. The innovation elites also make concrete efforts toward such assumed contributions, pouring hundreds of millions of Euros into gargantuan programs to stimulate R&D and industrial development both in very practical and hands-on areas like hydrogen fuel cells and efficient batteries, and concerning more visionary and vaguely defined things like the "circular economy" and the "energy transition" (Amenta and Stagnaro 2022: 247), aiming to turn costs into investments and achieve growth, innovation, job creation as part of the task to save the planet. Similarly, an "entrepreneurship industry" has been built up, consisting of a heterogeneous set of actors and organizations that produce and market "goods and services explicitly intended for opportunity discovery and development by current and prospective entrepreneurs" (Hunt

and Kiefer 2017: 231). Entrepreneurship education programs are commonplace at universities and colleges today, embedded in a variety of institutional arrangements that are said to stimulate innovation and make entrepreneurs out of both students and teachers. Governments and their agencies award massive amounts of money in prices and grants to prospective entrepreneurs and innovations. Inside companies, corporate venturing activities such as innovation labs, incubators, venture capital, and innovation outposts are mobilized to make the organizations more innovative. While estimated to have a volume of tens of billions annually just in the United States, the "entrepreneurship industry" is not conducive of entrepreneurial success and innovation: It has been shown that consumption of the products and services of the entrepreneurship industry *lowers* both entrepreneurial performance and chances for businesses to survive in the long run (Hunt and Kiefer 2017). The result is therefore more of an "untrepreneurial economy", meaning an economy "in which extensive efforts and resources are invested in entrepreneurial activities that appear to be innovative and economically valuable, but lack the substance to contribute meaningfully to economic growth" (Hartmann et al. 2020: 881).

Emptiness is not only deceitful, but also wasteful.

Conceptual Starting Points

Disconnects between what people say and do, and gaps between the public image conveyed by organizations and what happens inside them, are well-known in organization studies (e.g. Alvesson 2013/2022; Spicer 2018; Hallonsten 2022b). In fact, it has been shown that many organizations, who continuously have to handle goal conflicts, ambiguity, and conflicting demands of different stakeholders, routinely make different appearances in different contexts—saying one thing, deciding another, and doing a third—and thus engage in "organized hypocrisy" (Brunsson 1989/2002). This shall be understood descriptively and analytically, rather than pejoratively, and as an often times necessary strategic tool for organizations to cope with incompatible demands.

But the pejorative ring to the word "hypocrisy" should also prompt us to stop and reflect. In public organizations, that live off taxpayers' money, organized hypocrisy is probably as unethical as the wording suggests. Private firms, whose success and failure are natural features of well-functioning markets and who usually live off the talent, hard labor, and financial investments of private citizens, should perhaps be spared from

similar critique—after all, their wasteful spending on empty innovation occurs only at their own loss, at least in monetary terms. But let's not forget the displacement effects. What real or substantial innovation do these companies fail to achieve when doing empty innovation? Also, much of the innovation complex of governments, agencies, consultants and researchers is about putting taxpayers' money to work in the knowledge-based economy, meaning, really, that also private companies that do empty innovation live off substantial governmental subsidies.

In this book, a starting point and conceptual viewpoint is the empirically identified discrepancy between empty innovation and real innovation, which we interpret theoretically with the help of the concept of "organized hypocrisy" and several similar conceptualizations from the broad field of management and organization studies. Among these can be mentioned Abrahamson's (1991) path-breaking study of managerial fads and fashions, Alvesson's (2013/2022) treatise on grandiosity, pseudo-events, and window-dressing in organizations, Spicer's (2018) analysis of "business bullshit", and a recent conceptualization of parts of contemporary organizational life as "pseudo reality" (Hallonsten 2022b). These studies are all indebted to the very popular neo-institutional organization theory, which builds on a fundamental understanding of organizations as torn between the rationality myths projected at them by their various stakeholders and broader society, and their real inner workings which are usually complex, chaotic, and irrational. The decoupling of these two worlds, and the tendency of organizations in the same field to grow increasingly similar (isomorphic) in terms of the rationality myths they adhere to and display their adherence to, are fundamental for the social legitimacy of organizations in current society, which in turn is one of their most valued assets (Meyer and Rowan 1977; DiMaggio and Powell 1983).

From an organizational point of view, therefore, a "yawning abyss" between the surface—the "grandiose but largely empty talk and action of managers, administrators, communication officers, and similar"—and the substance—the "reality of organizational work processes as experienced by the professionals who make up the 'operating core' of organizations" (Hallonsten 2022b: 1) might be convenient and suitable, although it comes with certain risks. For organizations, and for the individuals who populate them, this yawning abyss might create negative spirals. Acts of window-dressing, to make organizations more "innovative", occur increasingly out of touch with the actual operations of organizations. People involved in these actual operations—as employees, clients,

customers, or other stakeholders—are rather quick to realize this, which expectably leads them to revert to cynicism (Gabriel 2008). But, most importantly: From society's point of view, the question must be asked differently, and attention paid to the activities and processes that organizations are involved in. How severe is the risk that the resources and energy put into building and polishing a shiny surface have been taken away from core activities upon which society arguably depends?

This is an academic study, and the primary audience is therefore an academic community. This is not seldom discussed in regretful terms: Academic work, and especially social science, is recurrently accused of producing mostly trivial results or even nonsense (Tourish 2019: 133ff), meaningless claims intended only for consumption by "sub-sub-specialisms" or "microtribes with highly parochial interests and concerns" and thus failing to "address the burning issues of our times" (Alvesson et al. 2017: 5–7). In the context of this book and its subject matter, such accusations should be taken seriously: We academics are certainly not innocent to the policy obsession with innovation, or to the growing entrepreneurship industry. Both entrepreneurship and innovation have in very broad and general terms been treated as self-evidently positive, and described as straightforwardly simple processes, in an abundance of academic studies (Jones and Spicer 2009: 113; Sveiby et al. 2012a). But it can be even worse still: Though we know little for certain about the real reasons—inability (incompetence), perverted incentives, or other forms of external pressure—it seems academic work on innovation, entrepreneurship, grand challenges, sustainable development, and so on, is indeed infested by superficial repetition of grandiose policy language—easy to digest, but without much depth or meaning. It has been claimed that as much as half of all peer reviewed articles published within the field of "sustainability and transitions" should be characterized as "scholarly bullshit", in other words "so pointless and unnecessary that even the scholar producing it cannot justify its existence" (Kirchherr 2023: 2). Such "scholarly bullshit" can of course seem rather harmless, but at the very least, it risks elevating topics and entire fields of study into a prominence they do not deserve. This, in turn, can lead policymakers and bureaucrats to believe in "research findings" that are neither relevant nor correct. Whether or not this is a real problem should of course be the subject of careful empirical studies. But there are real and imminent risks that findings that emerge from scholarly work is too hastily accepted or established by decision makers as scientific proof or even "truth" (Hallonsten 2022a: 287; Pacchioni

2018: 82; Roberts and Shambrook 2012: 34). This book was peer reviewed at an early stage of its completion, and while that procedure certainly should be considered some certification of the merit of its contents and claims, it should not fool readers to blindly believe every syllable. Everyone's own judgment of the validity of the arguments is ultimately what matters most, in order to give the book and its message credibility.

Academics take part in fueling society's obsession with innovation, entrepreneurship, and economic growth also by maintaining unnaturally close connections with the policymakers and bureaucrats of the innovation theater, and the actors and institutions of the entrepreneurship industry. Put differently, there is way too much scholarly research going on in the business schools, faculties of social sciences, and cross-disciplinary "centers for innovation studies" and the like, characterized not only by a deafening "pro-innovation bias" (e.g. Abrahamson 1991; Sveiby et al. 2012a; Fougère and Harding, 2012; Godin and Vinck 2017; Segercrantz et al. 2017) but also by something that can be called *policy positivism*. This is analogous with "legal positivism" which is a jurisprudence doctrine that asserts that whatever the current law says is right and righteous, without any other ethical or practical considerations made (Hart 1961/2012). Policy positivism thus means that researchers, consciously or subconsciously, uncritically embrace any current political, bureaucratic, or managerial message, and uncritically study projects and ventures launched by governments and their agencies, or by the higher managerial strata of corporations. In practice, in innovation studies, this means that when governments (or the European Commission) launch new major funding program to support academic "excellence centers" or "innovation hubs" or "triple helix partnerships", innovation scholars put out a flood of publications in international journals that document and analyze these programs and the "centers", "hubs", and "partnerships" they support, with little or no critical assessment of the suitability, meaning, or adequacy of the programs and their structures. The tendency is not new, and has been observed in other fields and in academia generally (Fay 1975: 27; Ball 1995: 259). Innovation scholars seem to constantly fail to take into account the vast knowledge about policymaking failure available in political science and economics (Kärnä et al. 2022). It is almost as if they view themselves as champions of (current) innovation policymaking, rather than the critical analysts they arguably should be.

The explanation for policy positivism is, of course, simple and straightforward: Innovation scholars are, just like most or all academic

researchers, dependent on the whims of their funders. You do not readily bite the hand that feeds you, especially not if you lack tenure and live your professional life one temporary employment contract at a time. In Sweden, the national agency for "innovation systems", created on the basis of an ideologized view of what innovation is and how it can and should be promoted (Eklund 2007), has funded virtually all existing research environments dedicated to the study of innovation for at least 15 years (Hall and Löfgren 2017: 311). But also, those of us who work elsewhere, and who enjoy the security and institutionalized academic freedom of permanent employment, recurrently need access to empirical material which is available only at the generosity and good will of organizations that have some kind of stake in what we study. The absence of first-hand empirical accounts in this book is only partly due to this predicament. The ambition to keep a healthy distance to the topic, in order to maintain the necessary critical perspective, is just as relevant.

But more important is the following disclaimer: The work behind this book has not received any third-party funding, and is therefore in this sense not indebted to anyone (but, by extension, the Swedish taxpayers). Whether or not this makes the analysis more critical or honest in any deep sense is for the reader to judge, but the intentions in this regard are clear: Social science is supposed to critically scrutinize existing structures, norms and patterns in the social world in order to redeem humans from false consciousness and oppressive models of thought (Habermas 1971: 67ff, 301ff; cf. Giddens 1996: 65), adopt a qualitative approach in the sense of interpreting and seeking to obtaining a deep and complex understanding of a phenomenon at hand (Mills 1959/2000: 51ff), and not shy away from controversial and challenging topics but instead show that things are indeed more complicated than the politician, bureaucrat, or business leader claim that they are (Berger 1963: 29–34).

Aims and Purpose

Armed with the honest determination of adopting—or, really, maintaining—a critical view and examine current society's obsession with innovation with a challenging and consequence-neutral mindset, it is high time to pin down the intended contribution of this book, and explicate some more of the theoretical perspectives that are used in the study.

As already suggested, there is, unfortunately, much to suggest that the misguided obsession with innovation has the effect that real or profound

innovation is much slower and less frequent now than, say, fifty or seventy years ago (see e.g. Erixon and Weigel 2016; Gordon 2016: 566ff; Heyman et al. 2019; Douthat 2020). Quite a number of studies claim, on basis of a variety of data and analytical approaches, that "ideas may be getting harder to find", that is, more money is being spent today for the same, or indeed less, output in terms of technological breakthroughs and marketable products and services (Bloom et al. 2020; Griliches 1994; Kortum 1993; Jones 2009, 2010; Kogan et al. 2017). Similar studies of the outcomes of entrepreneurship—usually defined as the rate of business start-ups and their subsequent survival—point at an overall productivity and efficiency decline in the United States as well as Western and Central Europe (Decker et al. 2014, 2016a, 2016b; Brattström 2022). One must be very cautious toward all kinds of quantifications of research and innovation output, and therefore we may not in this book draw any definitive conclusions on this point, but settle with establishing that these studies are fairly unanimous in a claim that is hard to completely discard.

It is fundamental to the analysis and critical ambition of this book to reject any attempts—scholarly, consultant, or political—to reliably measure innovation with any sufficiently robust and simple indicators to enable stringent comparison over time. This is quite simply not possible, due to the systemic, cumulative, social, inert, and complex nature of innovation (which we will return to in the book's final chapter). Most of all, one should be very careful to evaluate the outcomes of innovation with too short time horizons. First of all, *Amara's Law*, which states that the impact of new technology is usually overestimated in the short run but underestimated in the long run (Searls 2012: 7), creates an unfortunate and unshakeable bias in such evaluation. But it is also the case that most really transformative innovations are accomplished in very long chains of events and through multiple intertwined processes. As a very telling example shows, most of the technologies that make up the crucial parts of one of the most transformative innovations of the past century, the smartphone, were developed at a time and in a context far distant from the ingenious and resourceful work of assembling them into a consumer product (Mazzucato 2013: 93–119). A simple thought experiment, based on this example, suffices to show how misguided any attempts are to evaluate the outcomes of innovation too quickly or with too simple metrics: Who, counting citations or patents or startups, would be able to capture the full range of impact that the transistor (invented at Bell Labs in the late 1940s), the solid state storage technology (invented at Toshiba and SanDisk in the 1980s), or the lithium-ion

battery (invented by researchers at Oxford University, the Asahi Kasei Corporation, and Exxon Research & Engineering Company in the 1970s)? Nobody. Their true impact has not been revealed until very recently (and it is probable that we still don't know its full extension), when they were put together (with several other technologies) in a consumer electronics device that to date has sold billions of units worldwide and changed not only the telecommunications industry but, arguably, also contributed to revolutionizing changes to the music and movie industries, mass media, several other consumer markets, urban transport, and even geopolitics, and in turn spurred the creation of several other multi-billion-dollar companies. In light of this impact, both incredibly deep and unfathomably broad, the type of "impact" that current shallow and simplified evaluation practices can manage to capture, pales.

But also if innovation is hard to trace, and even harder (not to say impossible) to evaluate the impact of, there is much to suggest that it has very little, if anything, to do with "innovationism" and all the other expressions of society's obsession with innovation and entrepreneurship. Simply put, there is "no evidence that actual innovation or technological change has increased during the period when everyone started talking about innovation" (Vinsel and Russell 2020: 13). It is a dire predicament of our current society that real innovation is in seeming decline while innovation policy, innovation fuzz, and centrally planned efforts to create innovation are intensifying. Empty innovation, the title of this book, therefore means something deep, both cultural and social, and with a history of its own. Why is current society obsessed with innovation, entrepreneurship, and economic growth, and why is it also seemingly incapable of achieving real innovation to any degree remotely close to this obsession, as expressed in policymaking, advertisements, and broader discourse?

The book sets out to answer these questions with the help of a sociological and historical analysis, based on years of research experience in the contemporary history of science and innovation, the sociology of science, and the science-society interface. In the book, several historical trends in politics, economy, and broader society are discussed—economization, bureaucratization, shortsightedness and impatience, unrealistic promises and expectations, an unnatural status assigned to entrepreneurship, a paradoxical simultaneous regionalism and globalism among politicians, and many others. In the next chapter, the origins and development of innovation as a concept and as a policy area are briefly chronicled, with specific attention to the rise of what Valaskivì 2012 calls "innovationism" and

Vinsel and Russell (2020) call “innovation speak”, and the transition of innovation into a key position in policy- and decision-making in the past half a century. Thereafter, in three broad thematic chapters, several historical and social trends are discussed that may, in different ways, have contributed to the development that took innovation from something ubiquitous but comparably unnoticed in our societies, to abundantly lauded and promoted but essentially empty. In the final chapter, the potential harmful consequences of the developments are discussed and summarized, together with an outline of how the arguably devastating current situation can be changed to the better, based on a more accurate and honest understanding and appreciation of what innovation is, how it works, and how it can be promoted.

CHAPTER 2

From Forbidden to Cure-All

Current society's obsession with innovation and entrepreneurship are based on an overly positive view of innovation, that seems largely to be matched by a similarly positive view among scholars of innovation. A quick glance at the literature in the interdisciplinary and steadily growing field innovation studies reveals a clear "pro-innovation bias" (Abrahamson 1991; Sveiby et al. 2012a; Fougère and Harding, 2012; Godin and Vinck 2017; Segercrantz et al. 2017).

An illustrative example is provided in the introductory chapter to the *Oxford Handbook of Innovation* (Fagerberg 2006). The chapter lists several "desirable consequences" of innovation that compel politicians, public administrators, and business leaders to seek to promote it: Innovation is "crucial for long-term economic growth", because it introduces novelty and variety into the economy, without which there would be stagnation; innovation "tends to cluster in certain more rapidly growing industries/sectors", where it is self-reinforcing and drives necessary "organizational and institutional change", and innovation is "a powerful explanatory factor behind differences in performance between firms, regions, and countries". Indeed, innovation is presented as the make-or-break factor for economic performance, since "[f]irms that succeed in innovation prosper, at the expense of their less able competitors" (Fagerberg 2006: 20). If this view is representative—and there is a lot to suggest that it is—then there is indeed a "pro-innovation bias" in innovation studies that most likely

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impedes the chances of properly studying the preconditions for innovation, in different forms and in different contexts, and assessing the various consequences of innovation and how they act out.

Though accurate in a general sense, and certainly supported by vast empirical evidence, the cited description is oversimplified in two respects. Firstly, because it promotes an indiscriminate view of innovation as something general and abstract, with little or no concern for what it actually entails in terms of resources, processes, or outcomes. Secondly, because it presents innovation as a universal solution, a cure-all for firms, sectors, regions, and countries that are underperforming in some way or that want to secure long-term survival and success. Therefore, while innovation no doubt is what brings renewal to the economy, and while innovation in some form is absolutely crucial for the survival and success of any organization and any society, the pro-innovation bias in the literature is deceptive because it fails to recognize that innovation is an abstract category that represents nothing in and of itself, and that innovation can have both desirable and undesirable consequences.

Undesirable consequences of innovation are especially neglected in innovation studies, together with non-business aspects of innovation processes. A systematic literature review of thousands of journal articles on various aspects of innovation, and the six most influential handbooks in the field, found that a very tiny fraction (0.4%) of the articles, and none of the handbook chapters, discussed "unintended or undesirable consequences of innovation". All the scholarly publications surveyed were found to have an unnatural focus on firms, the needs of firms, and the activities of firms. The pro-innovation bias and the business bias make innovation research "mainly concerned with what is directly measurable as economically beneficial for innovating firms and change agents" (Sveiby et al. 2012a: 61). The business bias is typical of our times, as it reflects a strong tilt in politics and broader societal discourse toward economic and financial concerns, economic and financial measures, and a view of human activities and human organizations as profit-maximizing enterprises (Chap. 3). But even if the unreserved business focus in innovation studies would be warranted, say out of a theoretically well-found argument or premise that innovation is indeed mainly or only interesting as a business phenomenon, it still makes little sense to not account for unintended or undesirable consequences. This is the first in a series of errors of thought that characterize our current societies' view on innovation, and it is peculiar to

have its foundation in the scholarly study of innovation, which emanates from a detailed understanding of renewal and change in economies. Quite obviously, the "creative destruction" that Schumpeter (1939) identified as both unavoidable and beneficial in overall perspective and in the long term and that is lauded by many economists and policymakers also can and will have some negative or undesirable consequences. That these are mainly neglected in innovation studies can probably provide reason for some of the undividedly positive view on innovation in broader society, which has evolved into an obsession.

Introducing the x-factor

But the pro-innovation bias and policy obsession with innovation was not always the norm. For the better part of human history, it seems innovation was generally viewed in negative terms. In Ancient Greece, innovation was a pejorative word and viewed as something that threatened the stability of societies, and the order of things, and therefore generally forbidden (Godin 2012: 38). For many centuries, therefore, the concept of innovation was not used at all, "except in the hands of critics or those who wanted to deny that they innovated" (Godin 2012: 39). This changed only far into the modern era: It was not until the early twentieth century that the productive effects of novelty started to overshadow the perceived threats, in scholarly and political discourse. Joseph Schumpeter's work of demonstrating the crucial role of innovation in economic (and social) development, and of ascribing innovation to specific actors, namely *entrepreneurs*, was instrumental in this shift at least on the scholarly side (Schumpeter 1939: 84ff). In the wake of Schumpeter's breakthrough ideas, in the first half of the twentieth century, innovation was mostly discussed academically, and as a theoretical conception of a positive x-factor in the economy (Godin 2012: 44–45).

What Schumpeter did when introducing the entrepreneur into the mix of the theoretical understanding of the economy, was to add a new building block to the central formula of *value creation*. Originally, and for the whole premodern period, this formula was dual—the only recognized sources of value in the economy were land and labor. Toward the end of the eighteenth century, as part of the industrial revolution, capital was added to the mix. During this time, the general understanding of the economy was that it would continuously and inevitably strive toward a

state of equilibrium. Schumpeter's own breakthrough innovation was to discard this view, and to refuse to stick to the well-known extra-economic factors (such as wars, religion, or politics) to account for changes in the economy and punctuation of equilibria. He instead looked within, and found the process that accomplishes new combinations of the productive factors: Innovation (Schumpeter 1934). Seen in retrospect, the argument is logical on the verge of self-evident: A rationally balanced economy, where all actors share the same information, are in possession of the same technology, charge the same prices, pay the same rents and wages, will stagnate. In such a market, Schumpeter argued, the only possible competitive advantage of a firm would be to cut prices. But if the premise is that costs of production remain the same, then price cuts must lead to cuts of profit margins, which is self-defeating in the long run. Therefore, Schumpeter suggested, the capitalist economy is dependent not on a continuous rational balance of land, labor and capital, but by renewal at the expense of equilibria. This is what Schumpeter named "creative destruction" through new combinations—innovations—that create disequilibria that give competitive advantages to entrepreneurs, at the short-term demise of competitors, and the long-term benefit of the sector, market, and society as a whole: "The carrying out of new combinations we call 'enterprise'; the individuals whose function it is to carry them out we call 'entrepreneurs'." (Schumpeter 1934: 74).

Schumpeter had a major impact on the economics discipline, but his ideas hardly reached the level of policymaking other than in the shape of general acknowledgments that innovation and entrepreneurship are sources of renewal in the economy. Western politics was, in the period from the 1930s to the 1960s, preoccupied with other quite demanding things: most of all World War II and the early Cold War, but also the buildup and expansion of the welfare state on basis of the vast returns of the unprecedented economic growth of *les trentes gloriouses*, all under the paradigm of Keynesian demand-side economics. This changed in the 1960s. If the early twentieth century had seen innovation go from negative to neutral, as it entered academia and became a theoretical concept, then the late twentieth century saw the emergence of innovation in broader society, most of all politics, public administration, and the economy, and the reconceptualization of innovation as something essentially positive. This transition was accomplished by the assignment of two meanings to innovation that certainly existed before but had not dominated.

The first is the understanding of innovation as *commercialized invention*, mostly of technological nature. The second was the view of innovation as a *process*. In previous times, innovation had mainly been understood as an *action*—"doing something differently, using new methods, processes, or practices" (Godin 2012: 46)—but now innovation begun to be viewed specifically as a process that could be enabled and mitigated. In the 1960s, policy documents in the United States began to synthesize these two meanings into a definition of innovation as the process that takes an idea or an invention into the market (Godin 2012: 46).

Scholars agree that this Schumpeterian policy shift in the 1960s made innovation into a business phenomenon and gave it a restricted technological and commercial meaning, a capacity in which it came to be viewed by policymakers as beneficial to the economy and to broader society. Several influential policy reports were produced in this era, that impacted legislators and policymakers across the Western world and, most of all, spurred them to action to promote innovation (Fougère and Harding 2012: 15; Godin 2012: 37–38). The impact of this thinking was to be huge within a few decades: throughout the remainder of the twentieth century, innovation became the de-contested and non-controversial concept, and cure-all factor for economic growth and sustainable development described in the introductory chapter to this book. In sharp contrast with the view a hundred years earlier, when innovation was regarded by policymakers as undesirable or at least doubtful in its meaning and usefulness, something that threatened the established order and therefore was unwanted, innovation now came to be viewed as a proper policy objective. Governments saw as their responsibility to work actively and purposefully to promote and achieve innovation. Academics stood ready to give their support to this view by supplying all kinds of evidence and arguments for why innovation is a force of good or even the only viable and reasonable course of action for anyone (cf. Fagerberg 2006, above). It was in this symbiotic formulation of economic theory and economic policy that innovation became an "ideology" (Godin and Vinck 2017: 4; Valaskivì 2012) shared by policymakers and academics, and more or less voluntarily embraced by entrepreneurs. There simply ceased to be any alternatives—if the economy was to grow, society was to develop, and challenges were to be met, innovation had to be accomplished. Or, put differently, "innovate or die" (Hasu et al. 2012: 90).

The fundamental tenets of the innovation ideology are summarized rather well in the above-cited introductory chapter in the 2006 *Oxford Handbook of Innovation*. Since the 1970s, and with increasing intensity, innovation has been viewed as the (only) answer to the need for competitiveness—the holy grail for industries, regions, and countries—and the (only) answer to the allegedly threatening 'lags' and 'gaps' between the United States, Europe, and other flourishing regions in the world (Godin 2012: 50). But even if Schumpeter's focus on business and the role of the entrepreneur and the firm was the intellectual foundation for this new innovation ideology, a key feature was the crucial role assigned to governments: If or when industries, regions, and countries were lagging behind, innovation was the obvious remedy. In the views of politicians, bureaucrats, and the theorists and scholars who readily served as consultants to these, governments could therefore not sit idle but had to act to mitigate innovation, or better, create it. Innovation had ceased to be viewed as "something that just happens in the world" and instead understood as "a normative aspiration" (Russell and Vinsel 2019: 252) that necessitates active policy intervention. Thereby, innovation became a major new policy area, one that "fundamentally altered the premises under which existing institutions could fulfill their societal functions—frequently in ways that marginalized any rationales and values other than innovation for framing and tackling social problems" (Pfotenhauer et al. 2019: 903). The perceived role of innovation as a force of renewal in the economy was instrumental in this development, given the historical period that this took place in.

Innovation Policy and Its Roots

A look at broader societal transformations toward the end of the twentieth century can further contextualize the change and provide explanations to why it is that the self-understanding of politicians and government officials entail an active role in creating and stimulating innovation and sustainable economic growth. Broadly summarized, the changes that began in Western society in the 1960s, and took off for real in the 1970s and 1980s consisted of a decline in the strong optimism, especially toward technology and administrative rationalization, that had characterized the first two decades after the end of World War II. This development was in part caused, and in part augmented, by several conspicuous and devastating events and developments.

The dark side of modernity's progress had been seen before—in the chemical warfare of World War I, in the Nazi-German Holocaust, and in the atomic bombs that ended the war—but in the 1960s, they became palpable and less readily justifiable with reference to politics and ideology. Environmental damage, the horrors of chemical weapons, pharmaceutical scandals, the effects of the oil crisis, and nuclear accidents—to name a few scattered examples—affected people also in democracies and in peacetime, and reciprocated with a generational shift and new political awareness in the baby boomer generation. This created a general attitude shift. In the immediate postwar era, an almost blind trust in science and technology as production factors and success factors for society had dominated society. In the 1960s and on, it was replaced by what sociologist Ulrich Beck (1992) famously called the *Risk Society*: A society characterized by risk awareness, and a perceived need to focus policymaking and development on minimizing and avoiding risks that predominantly are caused by the technical and social development that previously was viewed almost exclusively in positive terms. With some delay, globalization would accentuate the development and add other dimensions to the transformation, including not least global and leveled information supply and a lowering of cultural barriers, for better and for worse, and a shift in power from local and national to supranational economic and political organs and interests, and especially a new boundarylessness in the expansion of global capitalism (Giddens 1990; Castells 1996; Bauman 1998; Beck 1999).

The aforementioned idea that rapidly spread in the 1970s, that governments have a crucial role to play in the economy not least in pushing innovation, should be understood in the context of these deep changes to (Western) society, and especially its economic implications for individuals, communities, enterprises, and whole industrial sectors. The restructuring of the economy in the final three decades of the twentieth century changed the entire dynamics of whole cities, regions, and countries, and in the light of these changes, it is hardly surprising that politics took a new route and began framing almost every policy area and policy decision in economic terms (Chap. 3). Here, we stick to a slightly more straightforward historical account that can help explaining how innovation became not only a cure-all but also something that politicians, bureaucrats, academics, business leaders, and a significant portion of the general public, believes that the state should be actively involved in.

A common way of historicizing the development of innovation policy in the second half of the twentieth century and beyond is by referral to three *generations* of innovation policy. Such a scheme is of course simplified for pedagogical purposes and should therefore be used with care so as not to adopt a deterministic view on policy development, so that current innovation policy appears as inevitable. As a general periodization, however, it works.

The first generation of innovation policy is usually identified as the research policy doctrine of the immediate postwar period. Although many of the institutions of postwar science and technological development in the West existed before World War II—universities with research mission, governmental and corporate research institutes, funding agencies, and so on—it was in the aftermath of the war that science became a cohesive policy area with substantial funding and a given place in the overall project of modernization and development of economy and society. Two key principles characterized this first-generation innovation policy. One was the *Social Contract for Science*, a figurative agreement between the institutions of science and government, that the latter fund the former without interference and direct steering, and in return gets innovations that benefit the economy and society as a whole. The other was the *Linear Model of Innovation*, which described exactly this almost automatic spillover from science to society (Guston 2000: 37–45). If enough money would just be invested in what was at the time usually called "basic" or "fundamental" science, it would lead to "applied" science and technological development, that would become innovation and produce economic and social developments and wide improvements of living standards (Smith 1990: 36–37). Although it was a greatly simplified model, that did not capture anything near all the dynamics and complexity of innovation processes, it also seemed to work fairly well in the historical context of record growth. Across the Western world (and in the Soviet bloc as well), governments spent enormous amounts of money on R&D. Further economic growth ensued. Living standards surely increased dramatically. In the 1960s, as the first signs of a slowdown emerged, some began questioning the linear model and the social contract. For the first time since the war, public and private spending on science plateaued (or even in some cases declined) in Europe and North America (Hallonsten 2016: 45) and serious questioning of the paradigm of technological progress was voiced.

But it took until the 1980s before the first generation of innovation policy was seriously questioned from a scholarly point of view. Kline and Rosenberg (1986) attained some fame for their "chain-linked model", which described innovation as non-linear, dynamic, iterative, and interactive, and which highlighted that the process itself does not have to begin with "basic" science. Innovation, they argued, could just as well start in other organizations and other sectors than universities and governmental research institutes, for example, firms and research institutes with more applied focus. Others proposed a similar reconceptualization and emphasized the *systemic* nature of innovation (e.g. Nelson and Winter 1982; Freeman 1987), which became the hallmark of the second generation of innovation policy. Under its reign, innovation support focused more on the linkages between research, development, and commercialization, and the promotion of network formation. Among the most famous concepts developed at the intersection of innovation studies and innovation policy and as part of the second generation is the "triple helix model" where academia, industry, and government collaborate to achieve innovation (Etzkowitz and Leydesdorff 2000).

Innovation politics and the academic study of innovation and entrepreneurship grew together, in scale and scope, from the mid-1990s and on. The (national) innovation systems approach to innovation studies, pioneered by Freeman (1987) and Lundvall (1992), combined with refurbished theories of market failure derived from Keynesian economics and cluster theory, popularized by Michael Porter in the 1990s, created a firm theoretical foundation for an innovation policy doctrine that viewed innovation and entrepreneurship as valuable for not only the economy but society as a whole, but in need of public support due to the inability or unwillingness of the market actors to engage in all necessary parts of the process. A key concept in this view of innovation is *positive externalities*, meaning that any development of new technology creates spillovers that tend to stay in the close vicinity of where the technology was developed, and boost the competitiveness and productivity of several actors, also beyond the sector or line of business of the original technology, in the close surroundings. But *market failure* (Chap. 5) is, arguably, just as prominent in the second-generation innovation policy, which simply views the market economy as unable to create and sustain the development that theorists, policymakers, and bureaucrats unanimously viewed as key to the continued and renewed competitiveness of industries, regions, and nations.

Mission Economy

In contrast to the supply-side focus of the first generation, and the commercialization and intermediary focus of the second generation, the current third-generation innovation policy is mostly outcome- and demand side-oriented, and clearly aimed toward what is usually called the "grand challenges" facing current society, such as climate change, the aging society, sustainable growth, and the future of transport and mobility. The systems approach to innovation from the second-generation policy is largely retained, but the systems are thought to be greater and more complex, including civil society and consumer markets, but still possible to control or at least govern with major initiatives and funding programs that are mission-oriented and typically transdisciplinary and cross-sectoral (Karlson et al. 2021; Mazzucato 2021). Third-generation innovation policy is not oriented toward increasing input to, or output from R&D, or stimulating entrepreneurship and innovation, or generally strengthening competitiveness in certain sectors. Instead, "policy programs are increasingly crafted to accomplish systemic transformation of the economy toward environmental and social sustainability" (Bergkvist et al. 2022: 202).

The generational shift in policy, from a systems- and stimulation-view on innovation to the mission-oriented programs of today, has many causes. One is certainly the general view, held by so many decision makers and bureaucrats today, that innovation is a cure-all and the road to salvation for firms, industries, regions, nations, and indeed humanity as a whole. The logic of the policymaker's view, in light of this, is easily graspable: If innovation is such a silver bullet, for not only economic growth but also the fighting of climate change, poverty, and pandemic disease (among other things), governments can of course not remain passive. In the wake of the crises of the 2000s—the War on Terrorism, the Great Recession, the Euro crisis, and the Covid-19 pandemic—there is now also a far greater niche for state intervention and an attractive role for politicians and bureaucrats to take as masterminds or spiders in the web of the grand missions deployed to meet grand challenges. The crises themselves have stimulated, if not warranted, series of stimulus packages as well as policies to protect national interests and industries, partly driven by the nationalist-populist turn in politics. The era of big government seems, by all accounts, to be back. Although spending, especially in the United States, had mushroomed already during the Bush presidency of

2001–2009, most of all in connection with the War on Terrorism and the Iraq War (e.g. Dziubinski and Yetive 2009: 99ff), it was the financial crisis and Great Recession beginning in 2008 that accelerated the development and reintroduced, on broad front, government subsidies to industries in both Europe and the United States as well as unprecedented and unrestrainedly rising levels of public debt (Streeck 2014: 47; Lerner 2009: 1–2). The Great Recession meant a "sudden and surprising revival of Keynesianism" (Pontusson and Raess 2012: 18), and the return of governmental intervention to stimulate and instigate growth and change—the "entrepreneurial state" (Mazzucato 2013).

Mariana Mazzucato has become a central figure in the "intellectual and economic milieu" (Wennberg and Sandström 2022: 4) that has developed as part of the renewed growth in demand for government intervention, initiative, and spending, with her three best-selling books *The Entrepreneurial State* (2013), *The Value of Everything* (2018), and *Mission Economy* (2021). "As policymakers around the world were looking for answers and ways to deal with issues such as global climate change, sluggish economic growth, and increasing inequality," write Wennberg and Sandström (2022: 4), Mazzucato's book *The Entrepreneurial State* "was perfectly positioned to go viral". It "provided public officials with a sense of importance and authority" and its message was swiftly accepted and adopted, especially in Europe, with Mazzucato serving as advisor both to the European Commission and to several national governments.

The essence of her message is something like the following: Important innovations, especially on the technical side and especially in the United States, have in the twentieth century been driven by governmental investments and in significant parts been developed in governmental organizations. The examples include wind and solar power technology, pharmaceuticals, and most famously the series of products launched by Apple in the first two decades of the millennium—the iPod music player, the iPad tablet computer, and the iPhone. They are all used in *The Entrepreneurial State* to demonstrate that investments in the early, high-risk phases of the development of these monumental innovations have been made by government actors rather than market actors. Looking ahead, Mazzucato (2013: 121ff) also predicts that the current investments in a so-called green industrial revolution by governments not only in the United States and Europe, but also across the Global South (in China, India, and Brazil) will lead to similar breakthrough innovations

with far-reaching positive effects for long-term sustainable economic growth. In *Mission Economy*, Mazzucato takes the message one step further, arguing that governments must take an active role in today's economy, not just promoting innovation and renewal but leading the way with "the same level of boldness and experimentation" that characterized the U.S. Apollo program, which put man on the moon in 1969 after several years of tremendously expensive developmental work (Mazzucato 2021: 5). President John F. Kennedy's bold assertion in a speech in 1962, that a manned mission to the moon and back would be undertaken within the decade, was more than just political rhetoric, Mazzucato (2021: 4) asserts: Kennedy indeed foresaw all the spillovers in the shape of technological and organizational innovations that the Apollo program created and whose long-term impacts on the economy and broader society go way beyond what we can grasp. Therefore, Mazzucato argues, we should abandon altogether the idea that the role of the public sector in innovation should be restricted to cases of market failure such as funding "basic" research and providing long-term institutional support for especially risky projects. This "narrow view" should be abandoned in favor of "mission thinking", a "new narrative and new vocabulary" (Mazzucato 2021: 7), that evidently means reversing several decades of policy change—see the discussion on economization and managerialism in the next chapter—and putting governments and public sector organizations (back) in a leading role of shaping not only economic development but defining the *missions* of (global) society and how to execute them, with large programs of research and innovation at the center (Mazzucato 2021: 163ff).

We will return to the flaws and merits of these arguments in the coming chapters. At this point, it suffices to conclude that Mazzucato's works, which have rendered such popularity and praise among policymakers and bureaucrats in the past decade, are epitomes of the most recent developments in the transition of innovation from something suspect and unwanted, through a status as evident and natural feature of economic development mostly accomplished by prudent shaping and lubrication of societal institutions, and to today's obsession. But there are several complementary causes of this development, that require a deeper theoretically informed analysis to shed appropriate light on, which the coming chapters will show.

CHAPTER 3

Economization

The previous chapter's outline of the history of innovation as a societal phenomenon and policy area identified the 1970s as a time when a major shift took place, with far-reaching consequences for how innovation is viewed today. The shift itself was caused by the relative decline that followed the unprecedented economic and social development in the first two to three postwar decades, and that brought stagnation and crisis to our societies, with far-reaching consequences for policy and politics.

The reasons for the crude awakening in the 1970s are of course many. History suggests that the hopeless war in Vietnam and the major toll it took on the American economy (besides turning global world opinion against Washington), was one of the key origins of the crisis. The refusal of president Nixon to raise taxes to pay for the war forced him to instead increase the supply of money, which of course pushed inflation up and eventually caused the administration to terminate the convertibility of the U.S. dollar to gold, effectively bringing the postwar global monetary system (the so-called *Bretton Woods system*) to an end, and with it the stability that had enabled the postwar growth. And if that was not enough, the turbulence around the Oil Crisis of 1973 caused drastic rises in energy prices, with a tripling of the price of oil in the course of just a few months, so that most Western economies, strongly dependent on oil not only for their production industry but across the whole market spectrum, took heavy hits (Hobsbawm 1994: 403ff; Judt 2005: 453ff).

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The overall policy response was a breakthrough for a specific type of economic thinking characterized by market-liberalism and monetarism, a doctrine that made monetary policy the superior instrument of economic policymaking and, by extension, economic policymaking a supreme policy area. The latter has been called *economization*, in attempts to downplay the ideologically tainted use of "neoliberalism" to blame the development entirely on the political right, and thus to underscore that the change was profound and driven by both the left and the right (Berman 2014, 2022; Hallonsten 2021a). In essence, economization means a gradual but sweeping takeover of all policy areas by concerns for the economy, its wellbeing, and its development, such as growth, productivity, and balance of trade. In the process, these and other rather abstract processes and interests became not only fair game for governments to meddle with, but indeed increasingly viewed as the prime responsibility for governments to cater to (Berman 2014: 399). But economization is also deeper and more far-reaching; a profound and versatile change to society that takes several shapes and operates on several levels, from public discourse and the rhetoric of governmental politics, to adoption of techniques and procedures for management and organization of individual and small-scale collective efforts, all leading to the reconstitution of behaviors, organizations, and institutions as economic (Callon 1998: 32ff; Çalişkan and Callon 2009: 370).

Obviously, both the epistemic authority of the academic discipline of economics and the wider proliferation of quantitative and simple (and comparable) measures of gross domestic product, R&D expenditures, inflation rates, and so on, contributed to economization (Callon and Muniesa 2005). But the hands-on approach to the economy developed by policymakers was also due to a broadening of the view of what constitutes inputs to the economy, and that governments can potentially stimulate in order to positively affect the economy. Most importantly, research and development (R&D) and innovation were increasingly viewed as important drivers of economic growth. Yet as sociologist Elizabeth Popp Berman also has argued, policymakers' understanding of the nuts and bolts of economic theories, and the exact nature of the input/output relations they attempt to influence, was and is naturally limited, which made the policy effects of economization fundamentally simplistic and superficial (Berman 2014: 399).

Thinking Like an Economist

While the igniting spark of economization was the economic downturn of the 1970s, the change itself was complex. Reframing of policy issues in economic terms, and a rise in economic awareness in the population, are only reasonable consequences of scarcity and austerity (Wentzlaff 2019: 63), and the economic downturn of the 1970s gave society several painful reminders of the finiteness of resources previously thought to be endless, such as oil and steel (Jacobs 2017). Meanwhile, the 1970s was also a time of reappraisal of the Social Contract for Science and the Linear Model of Innovation (Chap. 2)—it was no longer self-evident that generous funding of (basic) science would automatically lead to contributions to technological and social progress (Smith 1990: 36ff; Guston 2000: 37ff; Elzinga 2012). Institutionalists in organization studies and political science have pointed at a similar shift from a *laissez-faire*-like confidence in professional and/or regulatory logics involving corporativist policy arrangements, to market logics and more direct steering and surveillance on behalf of governments and their agencies, in a wide array of sectors and fields (Brock et al. 1999; Freidson 2001; Steinmo 2010). Political analysts have documented the apparent move of American politics to the right in the last decades of the twentieth century and shown that, starting in the 1970s, more and more political issues were framed in economic terms, a development that can be said to have peaked with Bill Clinton's 1992 election slogan "It's the economy, stupid".

Apparently, a belief began to spread among policymakers, in the wake of the economic crises of the 1970s, that a consistent framing of all kinds of policy issues in economic and financial terms would appeal to anxious voters. Perhaps this was an accurate political judgment: Economic issues did rise to the top of the list of the most important political issues cited by voters in polls, in the same period (Smith 2007: 65–67). The development was bolstered by the several real and partly imagined or overblown economic crises and structural changes that affected individuals, communities, and society as a whole, including the energy crises of the 1970s, stagflation and slow wage growth, and tightening international competition which led to outsourcing and downsizing, and weakened health and pension coverage. The result was, by all available accounts, a self-reinforcing cycle of economization of not only politics and media, but also civil society and indeed life itself.

American politics consequently has, since the 1970s, become "reoriented around economic interpretations of issues" (Smith 2007: 17), a view on policy that was "almost irrelevant to policy in the early 1960s; by the 1980s, its language shaped the terms of debate in domains once seen as well beyond its scope" (Berman 2022: 10). Economic growth has become framed as not only the preferred solution, but the only solution, to whatever problems society faces (Collins 2002; Cook 2016), and quantitative indicators of economic progress have started to live their own lives and become misrepresentative for society's progress, or lack thereof (Stiglitz et al. 2010). A "distinctive way of thinking about policy" has spread among policymakers, namely an "economic style of reasoning", a "loose approach to policy problems that is grounded in the academic discipline of economics, but has traveled well beyond it" (Berman 2022: 3–4). Though often perceived as politically neutral, perhaps even objective by the virtue of its scientific basis in the academic discipline of economics, the distinct way of framing policy problems in economic terms carried with it a number of values, including efficiency, incentives, choice, and competition. Subtly but clearly, these values were allowed to displace other values, like individual rights, universalism, equity, intellectual and artistic freedom, and balance between society's various value spheres or life orders (Berman 2022: 4). Above all, *efficiency* was made into a cardinal value of public policy, so that first, the success or appropriateness of any adopted policy would be evaluated above all by its cost-effectiveness, and second, so that policies were drafted and crafted with primary attention to its outcomes in terms of maximum net benefits to society, usually measured in economic terms. Efficiency, though a value closely associated with shortsightedness and a purposeful or subconscious neglect of any soft and less simply measurable values, was viewed as entirely politically neutral: "Any objective can be achieved in a more or less efficient manner, and who would advocate inefficiency?" (Berman 2022: 6). The purpose of any investment or reform of education (on any level) would therefore, by this logic, be casually assumed to be to prepare students for the labor market, and similarly, any investment in public health would just as casually be assumed to be to make individuals more productive and less of a burden for family members or the public healthcare system as they grow old.

Markets are today generally viewed as the most efficient allocators of resources in all parts of society, and thus a role model for organizing social life. The resulting "tyranny of the market" (Bourdieu 1998) and "market triumphalism" (Sandel 2012), and the senseless power of corporations

over people's lives (Klein 1999) reflect broader changes to the economy's role in society that have been ongoing at least since the turn of the last century, with urbanization, industrialization, secularization, commercialization, expansion of labor markets, and decline of community life (Hochschild 2012; Putnam 2000).

This has not only meant a substantially increased faith in markets to accomplish improved efficiency in resource allocation, but also that policy domains and public sector organizations and institutions began to be viewed "through a market lens" and the effectiveness of their operations measured with markets as model, including the introduction of "market-like elements" like choice and competition into areas where the market logic is not as evidently apt, such as education and health care (Berman 2022: 6; cf. Hochschild 1983, 2012). "The reach of markets, and market-oriented thinking, into aspects of life traditionally governed by nonmarket norms", writes Sandel (2012: 7), "is one of the most significant developments of our time."

Consequently, a business ideal also spread and became the model for everything from how people are expected to view their role in society and the economy to the sentiment that rules public services and organizations. This includes the microeconomic frames of reference that characterized much of the turn to the economic style of reasoning, but it also, crucially, included entrepreneurship ideals and a deeper enterprise culture where business-like achievement was promoted as a key civic virtue. A symbolic reminder of how this cultural ideal spread through unprecedented and unexpected policy areas is the 1984 speech by U.K. prime minister Margaret Thatcher, in which she explained that she had come into office "with one deliberate intent: to change Britain from a dependent to a self-reliant society—from a give-it-to-me to a do-it yourself nation, a get-up-and-go, instead of a sit-back-and wait-for-it Britain". To accomplish this, Thatcher explained, "a new culture—an enterprise culture" was needed, "which accords a new status to the entrepreneur and offers him the rewards to match; which breeds a new generation of men and women who create jobs for others instead of waiting for others to create jobs for them" (cited in Greene et al. 2008: 64). This "culture of enterprise" spread far beyond the borders of the United Kingdom (e.g. Keat and Abercrombie 1991), and was interwoven with the proliferation of entrepreneurship discourse (Chap. 4).

But the enterprise culture also extends to a proliferation of a business ideal for all kinds of organizations, including not only public services but

also civil society and voluntary or membership-based organizations (Brunsson 1994). Once-amateur football clubs are operated as multibillion dollar industries; former consumer and housing cooperative associations are turned into corporations; universities, hospitals, and schools are operated by profit-making companies, with the effect that students, patients, and (former) members enter into customer relationships with the organizations they would previously participate actively in building and operating for the common good. To properly contextualize and explain these deep changes to the very core of the fabric of society requires the use of social theory at the absolute most advanced level, and a holistic view on societal transformation that takes into account the really grander scheme of things.

Imbalanced Rationalization

One of the most advanced and renowned social theorists of the latter half of the twentieth century is the German sociologist Jürgen Habermas, whose revised iteration of the critical social theory of the Frankfurt School, and penetrating analyses of contemporary society, has earned him due fame. Habermas' *magnum opus* from the early 1980s, *The Theory of Communicative Action*, is well-known for its construction of a concept of reason and rationality that does not take an instrumentalist or objectivist approach but assigns it to the emancipatory capacity of interpersonal communication and wider societal discourse. His ambitious interpretation of Max Weber's concept of modernity in the first volume of *The Theory of Communicative Action* is based on the identification of Weber's different forms of rationality with his underdeveloped but fascinating notion of society's "value spheres" with "internal and lawful autonomy", including the state and the economy as distinct entities (Weber 1946/2009: 328; Hallonsten 2021c). Habermas settled on an interpretation of the economy and the state as "instrumentally rational" (in Weber's terminology) and other spheres including science, art, and religion as "value rational" which places the spheres in "irreconcilable tension" with each other (Weber 1946/2009: 351). In Habermas interpretation, this creates "imbalanced rationalization" and a development of modern society that sees "the capitalist economy and modern administration expand and at the expense of other domains of life", especially those that are value rational, and thus "squeeze them into forms of economic or administrative rationality" (Habermas 1984: 183). The result is "the system's colonization of

the life world" (Habermas 1987: 153ff) and the displacement of the communicative rationality that embodies humanity's emancipatory and creative potential, in favor of a dominance of capitalism, market economy, and bureaucracy.

Habermas' theory of society is comprehensive, but it is possible to use his thesis of the "the system's colonization of the life world" somewhat selectively, to give theoretical consistency to the empirically identified process of economization. The thought is not unique to Habermas—similar ideas of "imbalanced rationalization", though under different names, have appeared in as diverse works as those of Hegel (1896), Polanyi (1944), Galbraith (1973), Bourdieu (1998), Stiglitz (2002), and Graeber (2015). All of them have in common an understanding of "instrumental rationality" (this is Weber's and Habermas' term, others have used other words for essentially the same thing) as inherently expansive and invasive. Both the capitalist market economy and bureaucratic administration have been shown to have seeming built-in expansion logics, albeit in slightly different ways (Parkinson 1957; Stiglitz 2002; Graeber 2015). Science, art, morality, religion, or any other conceivable "value rational" spheres of society do not have the same intrinsic logic of expansion.

It is, therefore, quite clear that the politics of economization are also more complex than the often-read story of the breakthrough for "neoliberalism" and other market-liberal ideas for governance and resource allocation (Slater and Tonkiss 2001; Djelic 2006; Duroy 2016). The theoretical foundation for economization is wider than neoclassical economics, and institutionalist or structuralist views on society are also commensurable with a policy-wise primacy of economic thinking and economic models (Çalişkan and Callon 2009: 373–376), including microeconomic concepts such as competition, choice, incentives, efficiency, and cost-effectiveness (Berman 2022: 11ff). It should also be noted that Marxist philosophy and sociology is imbued with the primacy of the economy over other spheres of life, and among the major political ideologies of the modern era, socialism (including social democracy) is the one most clearly focusing on economic (in)equality and economic means of adjusting it, which gives the political left a theoretical and ideological foundation for economization just as robust as that which "neoliberalism" finds in neoclassical economics. This makes it only logical that the policies that drove economization "resulted from a variety of political projects undertaken by a variety of political actors holding a variety of political and economic philosophies" (Berman 2012: 16), including not least the American left as

represented by the Democratic Party (Berman 2022: 13ff). Of course, forced to deal with recession and a faltering economy, the political right blamed red tape and excess governmental bureaucracy, and the left blamed market failure, but they appeared to have been united in their embracing of government intervention and political reform work as the solution, and most of all, they shared "the idea that the main purpose of government is to affect positively the larger economy" (Berman 2014: 399). With economization, governments began to view their countries as gigantic corporations whose main interests are maximizing productivity and profit (Fougère and Harding 2012: 28–29).

But economization is also "a systemic societal process" and its effects are seen in several pervasive features of contemporary society (Wentzlaff 2019: 58). Perhaps best understood as a *drift* of the criteria and standards by which efficiency and appropriateness of processes and structures are judged in society, economization thus entails several changes to how organizations function, what they do, how they are perceived by various stakeholders, and how their activities and goal fulfillment are appraised. This includes changes to the logics of governance of organizations outside of the private sector, toward hierarchical and functionally differentiated structures modeled on companies, at the expense of local and bottom-up governance patterns such as collegiality, professionalism, and voluntarism and trust in the competence and judgment of "communities of practice" (Wenger 1998; Freidson 2001; Rennstam and Kärreman 2020; Hallonsten 2021a; Alvehus 2021). It entails the drift of the mode of work of civil society organizations from voluntary and member-based associations to professionalized organizations engaged in lobbying and advocacy with measurable outcomes, described by Skocpol (2003) as a shift from "doing with" to "doing for". It includes the dispersion of profit motives into new areas of life and spheres of society, most clearly perhaps exemplified by sports, where games and competitions are still decided on the field and in the arena, and money cannot simply buy a better result, but where games and competitions are "organized and played in such a way as to produce the highest possible profit", both for organizers and clubs and individual athletes (Münch 2014: 254). It extends to the commodification of life, in a close-to-classical Marxist sense, whereby "all things that have value—land, labor, technology, ingenuity, affection, joy, misery, and so on—are reduced to quantities that can be plugged into balance sheets and judged by their utility for producing profit" (Vinsel and Russell 2020: 85). And it extends to society's view of the role of its central institutions, exemplified

by the habit of speaking of contemporary post-industrialism as "the knowledge-based economy", which is supposed to signal an economy based on science, creativity, and learning, but which to some extent in practice has meant the relegation of knowledge and society's knowledge-producing institutions to functions as subcontractors to the economy (Hallonsten 2021b: 392).

In the latter case, it is important to note that academia, at least in the United States, was not a passive recipient of policies of economization. University leaders evidently saw opportunities in promoting the idea of academic science as an economic engine through innovation, as part of a longer-term strategy since at least the 1960s of trying to persuade policy-makers that they deserve their share of public funding (Berman 2012: 147). Scholars in economics, whose theories of innovation as a crucial driver of economic growth had been around for decades, emerged out of their previous obscurity and volunteered to underwrite all kinds of policy decisions that were made with the claim of helping innovation, in the wake of the economic downturn (Berman 2012: 13). The competitive imperative brought to academia and other institutions in society was strengthened by globalization, one of the most salient features of what sociologists call the "late modern era" or "reflexive modernity" (Giddens 1990; Beck et al. 1994). Globalization is usually taken to mean the shrinking of the world in terms of the flow of people and information across the globe (Castells 1996) and a shift in power from national to international scenes (Thompson 2008), but it also entails a gradual lowering of barriers to the global expansion of capitalism, and the emergence of global markets not only for consumption and finance but also, apparently, for public goods. In combination with economization, globalization made competition on economic terms and in innovation into a key driver for policy- and decision-making, not only competition between companies but also for example universities (Wildavsky 2010), and perhaps most evidently between cities, regions, and countries (Hasu et al. 2012: 87).

Managerialism

The central tenet of efficiency in the "economic style of reasoning" among policymakers and bureaucrats in the public sector has a counterpart in the management and governance of organizations in the public and private sectors alike, and the way it has changed. Efficiency, measured in economic terms, is key to the ideology of *managerialism* which has been

identified and conceptualized as a spreading plague in organizational life across the Western world in the past decades.

Analogous to the misconception that "neoliberalism" and thus right-wing politics are solely responsible for the turn to economic thinking in the West in the past half a century, is the very popular use of the ill-defined and not very analytical concept *New Public Management (NPM)*. If taken to mean a bundle of reforms aimed at making public sector organizations more business-like, by abolishing bureaucratic governance by rule and decree and appointment and replacing it with *Management by Objectives (MBO)* and strict appraisal according to predefined criteria, then NPM is a rather good description of the overall shift in attitude and policy toward public sectors in Western countries in the 1980s and 1990s. And where NPM certainly did not make public sector organizations operate as businesses—this would require real markets and real incentives structures—it most likely contributed strongly to the spreading of the ideal in politics and society that everything is a business or at least should be treated and thought of as a business. Economization only partly captures this development, and it is necessary to also look to management.

Fredrick Winslow Taylor is well-known for his "principles of scientific management" (Taylor 1912) that prescribed steering and coordination of production of goods and services by standardization, measurement, and hierarchical control. It was most popular around the turn of the twentieth century and contributed strongly to the effectivization of industrial production, but has been almost one-sidedly refuted in later management and organization studies, due to its impersonal and even inhuman approach to management. Nonetheless, the idea of a supposedly exact and objective form of steering and management of organizations, that can do away with the alleged inherent inefficiencies and arbitrariness of professions, crafts, and human decision-making in general, has prevailed. There is a lot to suggest that a mutated Taylorism, or "hyper-Taylorism" is prevalent today (Klikauer 2013: 49), part of what has come to be called *managerialism* (Enteman 1993; Locke and Spender 2011; Parker 2002; Wooldridge 2011).

The four central principles of managerialism have been identified as follows: Efficiency as the primary goal of management; a belief in management techniques and tools as superior to all other forms of governance; a "class consciousness" among managers that consists of a number of common frames of reference that are reproduced through educational programs (in business schools), management literature, management lingo, and other markers of identity; and a view of managers as "moral agents"

which means that managers view themselves and their work as not only fundamentally beneficial (and necessary) for their organizations, but indeed for society as a whole (Edwards 1998). This makes managerialism an ideology, not only shared by (many or most) managers but also prevalent in society and sustained by a number of arrangements that are culturally coded. The philosophical basis of the ideology of managerialism is a view of society and humanity as inherently disorganized and capricious, and thus in need of exact and neutral tools for governance and steering that can bring order into chaos and replace arbitrariness with predictability and transparency. This idea, in turn, goes back to the very project of modernity. Through the enlightenment, the industrial revolutions, the growth of a capitalist market economy, and the advance of democracy and human rights, humanity broke free of its previous savage state and entered an era of rational organization of society. This meant control of nature, control of man, and control of social life, through planning and calculation. As modernity evolved, order and control were expanded to defeat disorder, ignorance, and arbitrariness not only on technical areas but also with regard to the individual human being as production unit and citizen, as well as the social structures and institutions that make up society.

Due to its supposed capacity to bring order into chaos, management is viewed by its proponents as a universal solution for goal attainment and efficiency, that not only can but indeed should be applied everywhere, on everything and everyone (Parker 2002: 5). But it is also organized and structured separately from the activities it is applied on, which means that the locus of control, coordination, and steering of work is removed from the level of professionals and practical situations and to an abstract and general managerial level where management is instated as a profession of its own, or even a "class" of its own (Edwards 1998), with its own training, career paths, knowledge base, and professional identity and self-image. The universal solution of management is thereby fortified or galvanized and increasingly decoupled from the pluralism of professionally and craft-oriented production of goods and services in an economy and society built on division of labor and specialization, but also infused with crucial personal and situated competence and judgment. If the self-governance of such pluralist and craft-oriented activities is replaced by a supposedly universal and general form of management, important values including (but not limited to) democratic participation and worker satisfaction are lost (Locke and Spender 2011). This does not mean that management itself is useless or harmful—quite the opposite, it is an important

part of the economy and of work life. But it should not be let to displace other values or subsume all human activities under a simplified conceptualization of efficiency (Parker 2002: 11).

The risk that it does is imminent today. Managerialism has been characterized as an ideological foundation for a broader collection of features of current society, that all have to do with steering and governance of organizations with the help of universal solutions in the shape of supposedly objective and neutral tools and techniques for securing and improving efficiency and goal attainment. As already noted, New Public Management (NPM) captures much of this, identifying *ex post facto* a series of reforms in Western countries, more accentuated in some than others (e.g. Great Britain, Sweden), whereby the governance of public sector functions and organizations have been reformed toward decentralization, line management, financial control, systematic and standardized quality appraisal, and a view of the citizen or client as customer (Hood 1995; Pollitt and Bouckaert 2004). Closely related is the *audit society* (Power 1997) or *evaluation society* (Dahler Larsen 2012) which are concepts used to describe the proliferation of auditing and (predominantly standardized quantitative) evaluation practices in society as a means to improve efficiency and goal attainment, understood in a very narrow but distinct sense as economic efficiency or at least efficiency measurable by the numbers. Muller (2018) has called this *metric fixation* and shown that it pervades current society as an almost irresistible force of making everything measurable and quantifiable and placing all trust in the capability of individuals, organizations, and society to fulfill its various goals in what numbers can convey.

Based on the argument that current society is an "evaluation society", Dahler Larsen argues that the obsession with quantifying things is a function of Beck's (1992) *reflexive modernity*, which was discussed above. The essence of the shift from modernity to reflexive modernity is that society went from optimism over social and technical progress to a state of questioning and acknowledging the dark side of the same progress. The resulting *Risk Society* is a society where all governance and management is geared toward exposing and documenting risks and hazards in order to (try to) avoid them. Evaluation and quantification, writes Dahler Larsen (2012: 144ff) becomes a necessary activity for all of society's organizations because society expects them to evaluate and quantify, so that they can show that they take risks and hazards seriously (whether they act to avoid these risks and hazards is not as important).

With this perspective, it is possible to view the attempts of reflexive modern society to handle the deficiencies of modernity—technology, social control, bureaucracy—as counterproductive. Instead of scaling back rationalization, the powerful institutions of modern society are merely able to produce more of the same: More technical and administrative rationality, more evaluation and documentation, more bureaucratic control, and more planning. The argument ties back to Parker's characterization of managerialism as a late-twentieth century iteration of modernity's inherent impulsion not to leave nature, humanity, or the social untouched in its disorganized and capricious state, but to correct it and replace its ignorance and arbitrariness with transparent and supposedly objective means of documenting and thus steering. The result is not a scaling back of rationalization in favor or more humanist or flexible models of organizing society, but an intensified form of rationalization that lives off the means of the information society, to document and measure everything. Put differently, society is in a state of hyper-rationalization, where nothing is (supposed to be) beyond the control of managers, not even genuinely unpredictable and organic processes like innovation.

No Size Fits All

There are, unfortunately, signs that managerialism is ruining many prospects of dynamic and creative work of the kind that typically are key ingredients in innovation, be it in academic science, development work in the private sector, or support efforts on behalf of governmental agencies. The bureaucratization of academia is a major topic in contemporary literature (Ginsberg 2011; Collini 2012; Münch 2014; Fleming 2021), and seems to be impacting also those parts of universities and colleges that are put in place to promote entrepreneurship and knowledge transfer among teachers and students alike (Terjesen 2022). The identified trends are certainly empirical examples of the macro-level trend identified by Habermas (1984, 1987) as "imbalanced rationalization".

In fact, it is not at all far-fetched to argue that the hegemony of managerialism today is a form of hyper-rationalization or hyper-*bureaucratization*. Recall that managerialism has been identified in recent scholarly analyses as both a form of "hyper-Taylorism" (Klikauer 2013: 49) and as a view on organizations, society, and the individuals that populate them that entails a belief in the possibility to eliminate the arbitrariness and inefficiencies that human operations allegedly suffer from (Edwards 1998; Parker 2002;

Locke and Spender 2011). This is not far from the ideals of bureaucracy, which usually embody a high level of trust in uniform rules and regulations, transparent and predictable decision-making, and hierarchical governance and control (Weber 1922/2019: 343ff; Bendix 1956). In fact, prominent analysts of the bureaucratic model of organization have pointed out its deep and inextricable embeddedness in modernity, as the default arrangement for the institutions of society that are there to guarantee liberty, equality, legality, and rationality (Sennett 1992; du Gay 2000; Kallinikos 2004)—very positive or at least generally desirable ideals that organizations and society probably should be built upon.

But there is of course a flip side, and one of the imminent risks of expansive bureaucracy is that it becomes a self-reinforcing institutional means of strangling creativity. This is because the rule-based and formalized organizational principles of bureaucracy in many ways is the exact opposite of what innovation needs: A bureaucratic organization, especially one that is entrusted with millions of taxpayer Euros or Dollars, will naturally (and perhaps rightly) try to minimize losses and maximize gains, which in organizational contexts normally means adopting a risk-minimizing and cautious strategy and an elaborate system of sticking to the rules and regulations rather than encouraging breaking of rules, no matter how rewarding the latter may be in the long run. But make no mistake: This phenomenon is not restricted to the public sector. Any organization that grows big enough also develops bureaucratic governance systems (Mintzberg 1983), and will sooner or later begin to revere the status quo. This goes for big corporations, and for universities, just as well as governmental agencies. The sad truth is that innovation does not naturally happen in these organizations (Ridley 2020: 295), where acts of disturbing the peace of challenging the status quo are actively discouraged and routinely punished. In order for large organizations to be innovative, they need to implement institutionalized means for fostering creativity and experimentation, such as corporate R&D labs where job descriptions and resource allocation are shaped flexibly; or guarding of the rules and norms of academic freedom in universities; or effective instructions to governmental agencies that lead them to pursue the imaginative and promising rather than simply or solely minimizing risks.

Economization, managerialism, and bureaucratization stymies innovation in a number of ways, and favors projects and initiatives that build up

the innovation complex without making much difference other than scoring high in shortsighted and superficial performance indicators. On general level, a society obsessed with economic growth to the degree that it regards all other areas of life and all other areas of improvement of society as subordinate to economic growth will lose sight of what real innovation is, how it occurs, and what can be done to promote it.

To the extent that it signals a growing awareness and worry among the population of a society over their own and the overall economy, economization also has a directly inhibiting effect on creativity. This is because the economy affects not only living standards but also behaviors and "the moral character of people" (Friedman 2005: 4). It is well-known that economic downturns and an increased awareness of grim economic realities have a negative impact on tolerance, generosity, and openness (Lindsey and Teles 2017: 3). All three are values conducive of creativity and innovation, but they can also easily be turned into their opposites by spreading feelings of economic insecurity, also if these feelings only partially reflect real economic developments and thus are due to a discursive or political overemphasis on the economy and its (risk of) demise. There is much to suggest that economization and the proliferation of the enterprise culture in our societies emphasized, well beyond what is warranted from a social science point of view, the rational, profit-maximizing, self-calculating character of the individual (du Gay and Salaman 1992; du Gay 2004).

Meanwhile, current society's preoccupation with evaluation, comparison, and documentation seems almost paranoid: There is virtually nothing in the organized social world that is not subject to measurement, ranking, and appraisal (Power 1997; Dahler Larsen 2012; Mau 2019). There seems to be an irresistible attraction in performance measurement today, and a seemingly irresistible temptation to let the results of all these measures and rankings to guide policy- and decision-making of all kinds, also when there is evidence that it works less well (Muller 2018: 4). But rankings and quantitative measures have two fundamental flaws: They fail to capture the qualitative aspects of whatever they measure, which hardly is surprising given that this is how they are designed, and they promote a view of the social world as consisting of zero-sum games. Simply put, when an organization, a region, or a country advances or descends on a ranking list, it all too often only amounts to a relative change. It matters little if every organization, region, or country on the list has improved in any absolute

sense, because attention is shifted to their relative changes of positions, which often is far less relevant but usually the only thing such rankings can show (Espeland and Sauder 2007). Metric fixation bolsters economization by reinterpreting every organized human activity as quantifiable, comparable, and competitive. Everything becomes a quest for short-term gains, preferably measured in monetary terms. Every human activity becomes enterprise-like, with proliferating expectations that it be managed as such.

The political expression of this is quite evident: Not only have governments across the world come to view all policymaking efforts as instruments to achieve economic growth; they have also, to increasing degrees come to view innovation as a tool in the manager's toolbox, though a tool legitimized by claims of a scientific foundation found in the supposed objectivity and neutrality of all the numbers and metrics that are used to back it up. With managerialism creeping into public sector organizations and political life, little is left but a conception of innovation as a means to an end, and one that can be measured and counted with short-term and quantitative indicators such as patents and new startups. The birth of contemporary innovation policy in the 1960s was very much tied together with the view of the state as a giant corporation, that should be managed as such and whose success or even right to exist hinged upon its ability to accomplish economic growth, not enable, but accomplish (Fougère and Harding 2012: 29–30).

Managerialism is a one-size-fits-all solution for the governance of organized human endeavors. But no size fits all, and especially innovation is something unpredictable, serendipitous, and is in fact, also inexorable. We will return to this in greater detail in Chap. 6; now it suffices to conclude that innovation is unmanageable, and every attempt to uniformly apply managerialism on such essentially creative activities will unavoidably stifle creativity and incentivize alternative behaviors, such as conformism, window-dressing, bean counting, hypocrisy (understood in a bad way), and profit-maximization at the expense of other important values. Real innovation is displaced by empty innovation, when society's obsession with innovation is not backed up by any real means of achieving it.

CHAPTER 4

We're All Entrepreneurs Now

Current society relishes entrepreneurship, almost to the absurd, and treat entrepreneurs as celebrities. The cultural ideal of entrepreneurship is mostly infused with a popular image of the entrepreneur as the "jet-setting, Silicon Valley-residing engineer who along with a couple of his buddies, has raised millions of dollars of venture capital to start a new company to make a patent-protected gizmo" (Shane 2008: 3). This image of the entrepreneur is a myth, but it works effectively to strengthen the individualism of current society and to offer escapist imaginaries in the shape of a promise of "individual autonomy, of self-valuation and of an escape from a currently humdrum and boring life" (Jones and Spicer 2009: 110).

The United States, which not only has a "uniquely entrepreneurial approach to religion" but also, during the twentieth century, "developed an unusually religious approach to entrepreneurialism" (Andersen 2017: 409), led the way in the global development of entrepreneurship from simple productivity factor to a technological and institutional "road to salvation" and a "means to emancipation" for individuals and for whole communities and societies (Brattström and Wennberg 2022: 5–6). As a result, society's thirst for entrepreneurship seems unlimited. Entrepreneurs "are seen as almost having a magical effect on economies—alchemists, whose innovatory capacity allows for water to be turned into wine, lead into gold" and they appear "omnipotent: able to create markets, shape markets, and, ultimately, destroy markets" (Greene et al. 2008: 3). In

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current society, entrepreneurship is therefore "supported without questioning of its validity" (Brandl and Bullinger 2009: 159–160) and has become "a cultural ideal (…) to which everyone is supposed to adhere" (Brattström 2022: 134). The positive valuation of entrepreneurship is itself neither mysterious nor wrong, given the remarkable achievements of entrepreneurs in the past few hundred years, upon which much of the health and wealth of our societies has been built (McCloskey 2016; Mokyr 2016). However, the idea that entrepreneurship should be applied to every kind of problem and embraced by every kind of actor—individual, organizational, institutional—is both novel and absurd.

More important, this bundle of ideas and ideals makes entrepreneurship into something essentially contradictory. On the one hand, the concept of entrepreneurship has been expanded to cover almost anything, "far beyond establishing new enterprises; it spreads into all areas of life" (Brandl and Bullinger 2009: 160). On the other hand, it alludes to a very specific type of actor, typically the "self-made man" who spots a gap in the market and builds a successful business, typically without much resources at all, and against all odds (Jones and Spicer 2009: 10). But neither of these images is even remotely close to real-world entrepreneurship, which is usually rather mundane and nothing out of the ordinary. Most entrepreneurs are middle-class men in peripheral places who build small businesses to make a living in spite of limited education and lack of jet set stardom, and their businesses are most often very low-tech, catering to basic needs of people like retail, accommodation and food services, and construction (Shane 2008). We will return to the myth, and the myth-busting later in this chapter. Right now, the contradiction itself is of greater interest, because it can perhaps explain why entrepreneurship is in so high regard in our culture: The very specific cultural ideals that are inscribed in the concept of entrepreneurship can, namely, be viewed as a popular culture phenomenon in its own right.

The Entrepreneurship Industry

Critical analyses of entrepreneurship as a present-day cultural phenomenon have emphasized the imagery and storytelling that surrounds it, and the importance of the creation of narratives around entrepreneurship that help in crafting the identities of entrepreneurs and promote their efforts in relation to a range of stakeholders (Down 2006; Jones and Spicer 2009). Some of these narratives are most likely true and accurate descriptions, but

they may also be mere myths, especially when transmitted into popular culture, mass media, social media, and public discourse. Current society buys into these narratives, and puts great faith in the entrepreneur as a mythical figure with out-of-the ordinary talents and capacities to transform and renew the supply of consumer products and services, industrial sectors, and whole economies. Therefore, a whole *entrepreneurship industry* has been built up to promote these narratives and imagology of the entrepreneur.

This entrepreneurship industry comprises not only of entrepreneurs (and would-be entrepreneurs) themselves, but a whole range of other actors—mostly organizational—who uphold and sustain the positive cultural ideal of entrepreneurship and turn it into a profitable business by claiming to enable and stimulate entrepreneurship, educate and train entrepreneurs, and assist and promote entrepreneurial efforts (Hunt and Kiefer 2017: 232). Among many other actors in this essentially fuzzy organizational field, we find conferences and expos, incubators and accelerators, policymakers and bureaucrats, inspirational speakers and coaches, consultants and matchmakers, books and magazines, competitions and TV-shows, education and training programs, and a lot more. The industry is both difficult to overview and difficult to understand. As summarized by one "entrepreneurship support actor" in a recent study: "There are a thousand different actors and no one understands what they are doing. It all just costs a lot of money" (quote in Brattström 2022: 138).

And it is, indeed, big business. On basis of a comprehensive study, Hunt and Kiefer (2017: 234) conclude that in one year alone (2014), "at least $13 billion in worldwide revenue was generated (…) through the sale of goods and services to current and prospective entrepreneurs", an increase of a factor of 26(!) since 1987, which makes the "entrepreneurship industry" into "one of the fastest growing sectors over that 27-year period". Three quarters of the industry (in the United States) is estimated to consist of "outsourced start-up support, consulting and advisory services, and entrepreneurship conferences and expos", but there is a lot more to it, including not least direct government support to startups, venture capital, and entrepreneurship training in higher education (Hunt and Kiefer 2017: 235).

The latter is a crucial feature. Entrepreneurship courses and modules are nowadays offered at very early stages of higher education (Heilbrunn 2010), in most universities (Chen and Goldstein 2022: 4). However, neither the content of the curricula or the apparent purpose of these educational efforts seem to be to teach any substantial skills of the type that may

be necessary for would-be entrepreneurs, such as management, leadership, accounting, business strategizing, or fundraising. Instead, their purpose seems to be to maintain and promote the cultural ideal of entrepreneurship, and instill in the students the aim to become entrepreneurs (Souitaris et al. 2007; Pittaway and Cope 2007). In Sweden, for example, all universities and colleges offer courses and programs in entrepreneurship, and those with knowledge about these programs—both teachers and former students—explain how they reproduce the "cultural ideals and artifacts" that are essential in training would-be entrepreneurs "in how to be an entrepreneur, over and beyond how to start a new venture" (Brattström 2022: 143). The *startup pitch* has a crucial role, and students are carefully trained in the art of conveying their entrepreneurial potential to whatever audience is imagined—typically a pool of potential investors (Chen and Goldstein 2022: 2)—but it is doubtful whether this is a viable route to entrepreneurial success given the disconnect of "the pitch" from any real entrepreneurial activity. The pitch is considered "super important" without anyone ever asking themselves what its purpose is, or what it represents (Brattström 2022: 142). Instead, it seems to be all about acting: "One of our respondents, a recent graduate and startup founder who impressed others with his entrepreneurial performances, dubbed this constant focus on presenting a speculative self the 'theater of entrepreneurship'" (Chen and Goldstein 2022: 2).

The emptiness of this theater is rather evident. The entrepreneurship industry lives off specific cultural beliefs about entrepreneurship, not real entrepreneurship (Hunt and Kiefer 2017: 238). In a way, this is not at all surprising, given how hard it is to teach creativity and innovative behavior, compared to style, presentation techniques, and other superficial attributes that can make individuals and their projects signal creativity and innovativeness. But the identification of the entrepreneurship industry as an organizational field—yet a very fuzzy one—also invites a further exploration of what the central tenets of neo-institutional organization theory can offer to the analysis. As noted in Chap. 1 of this book, its basic premise is a separation of formal and informal structure in organizations, and the tendency of formal structure to become myths that have little or nothing to do with reality, which instead is found in the informal structure. Importantly, the gap between myth and reality has broader relevance as a tool in the social sciences, and this probably explains the popularity of neo-institutional theory far beyond organization studies. The myths that society perpetuates, and that are transformed into expectations on

organizations (and individuals) on how to act, or really, what to say and what to write in official plans and policies, are crucial for legitimacy (Meyer and Rowan 1977: 344–345). In the entrepreneurship industry, where real signs of legitimacy of new ventures are rare—these new ventures "typically do not have a strong brand, obvious assets, or preexisting track record"—it is crucial for the (would-be) entrepreneur to adhere to cultural ideals and manifest these by certain behaviors, talk, and symbols (Brattström 2022: 151). In lieu of real, substantial resources, image and looks become very important to create social legitimacy.

The entrepreneurship industry seems even to have transformed entrepreneurship from a type of achievement to an area of consumption. Enabling the people at the receiving end to identify with the culture of entrepreneurship and placing themselves in the position of the hopeful aspirant to become one of the heroes of contemporary capitalism, the entrepreneurship industry has become the supplier of goods and services that are the subject of what sociologist Thorstein Veblen once called "conspicuous consumption". Launching this concept in his seminal work *The Theory of the Leisure Class*, Veblen viewed "conspicuous consumption" as a consequence of consumerism and the development of a non-Nobility upper class, that goes together with "conspicuous leisure". Together they imply consumption of luxury goods and services with the aim of demonstrating economic power and wealth, in order to obtain higher social status. Useless in broader perspective, as it contributes marginally or not at all to the economy, it has no purpose for the useful production of the various goods and services that modern society needs in order to function (Veblen 1899/1994).

It is, in historical and sociological perspective, not very surprising that lifestyles and identities become an arena for such "conspicuous consumption", given the transition from the "affluent society" (Galbraith 1958) into the "post-affluent society" (Alvesson 2013/2022), where the standard of living has long since reached levels only available to a tiny fraction of the population some hundred years ago. As part of this development, the relative decline of the role of necessity-driven consumption in society has made Veblenian "conspicuous consumption" available to the masses and pushed consumption toward desires and wishes rather than needs (Chaudhuri and Majumdar 2006). It is likewise unsurprising that the entrepreneurship ideal has become a sought-after lifestyle and identity, given that the past decades also have seen a continuous blurring of boundaries between work and leisure, and the rise of work into far greater

importance than a mere source of income and social security (e.g. Boltanski and Chiapello 2005). Occupation is today a far greater part of individual identity today than in previous times, and as we will analyze in greater detail later in this chapter, ideals of personal autonomy, creativity, and self-expression are nowadays also completely integrated into society and culture.

With the expansion of the entrepreneurship industry, the entrepreneur's continuous rise in status in society, and the increasingly strong association of entrepreneurship with specific personality traits, behavioral patterns, habits, ways of expression, and physical attributes, entrepreneurship has therefore become an arena of itself for Veblenian "conspicuous consumption" (Hartmann et al. 2020). By consuming the products of the entrepreneurship industry, individuals can simply consume their way to the entrepreneurial identity without making any substantial contribution of the kind typically identified with entrepreneurial acts. This kind of "Veblenian entrepreneurship" is an activity driven most of all by a want of identity, which means that the main activities of a "Veblenian entrepreneur" is to build and maintain a lifestyle with certain specific attributes. But the phenomenon is broader, and includes reinterpreting failure as success (Hartmann et al. 2020: 880) much in the same way as expectations with uncertainty built in are mobilized as causes for action (Chap. 5)—whatever the signs of things not going according to plan, it can always be reframed as opportunities to act on. This, in combination with the tendency of downplaying negative experiences of entrepreneurship, and constantly putting the spotlight on positive examples, regardless of the relative frequencies of these (Zacharakis et al. 1999; Hayward et al. 2010), contributes greatly to our society's false image of entrepreneurship and innovation as inherently good and always desirable.

In this climate, addiction to being entrepreneur is a simultaneously absurd and expectable phenomenon (Spivack et al., 2014; Spivack and McKelvie, 2018). The actors and organizations of the entrepreneurship industry have no incentives to try to break such addictions—quite the opposite. In this sense, the entrepreneurship industry is in good (or, shall we say, bad) company: At the intersection between today's service economy, and the atomistic individualism of society, is a huge market of products and services that supposedly help (especially young) people to achieve things that were previously (and by many people still) done as part of everyday life, like getting into college, or simply dealing with the demands of adulthood. Services like "life coaches" and online sites that give career advice, not to mention commercial services like essay mills that assist

students in cheating their way through their studies (Newton 2018), were unheard of some decades ago but seem nowadays to be routinely used by young aspiring individuals as "products that satisfy their personal wants and help them express themselves as individuals" (Twenge 2006: 288). Entrepreneurship, it seems, is one major route to such self-expression.

The Me Generation

Sociology has long acknowledged that the two perhaps most prominent features of modernity are rationalization and individualism (e.g. Durkheim 1893/1969; Weber 1922/2019; Parsons 1971). This means that in contrast to premodern times, when families, clans, and smaller communities were society's key entities, in modern society the individual has the central role. This means both that under the modern condition "the nature of the individual is a matter of public importance" and that "every modern ideology of public life and society includes the individual as a prominent component" (Frank et al. 1995: 361), but also that individualism has evolved into a cultural ideal that permeates most of society (Lukes 1973; Hwang and Powell 2005). Economization and the rise of the enterprise culture models society after the economy, and the economy caters to the aspirations of individual self-fulfillment, by its atomistic and short-sighted way of reducing social life to business transactions, consumption, and entrepreneurship.

Importantly, therefore, individualism is not just a personal attitude or orientation, but has become "an ideological doctrine that pervades all areas of Western societies" (Brandl and Bullinger 2009: 161), and "a matter of collective public concern" (Frank et al. 1995: 361). To some extent, individualism is a fundamental and instrumental factor for the functioning of liberal democratic societies—humans are assumed to have specific individual rights and obligations—but it is also stressful and trying, both for individuals and societies, and a source of unrealistic and superficial cultural imaginaries.

In the mid-1970s, American novelist author Tom Wolfe famously identified his present times as the "me decade" (Wolfe 1976) and thus popularized the notion that a new attitude had spread across the United States after the social upheavals of the 1960s, which gave way to an escalation of the atomized individualism, at the expense of the social values of community and solidarity that had characterized American society at least since the days of the Great Depression and the New Deal (McNamara 2005).

Only a couple of years later, cultural historian Christopher Lasch explored a similar line of argument in his book *The Culture of Narcissism*, claiming that the individualism of American culture had transformed narcissism from an individual disorder to a nascent social epidemic and a condition of society as a whole, and individualism from not simply a counter-reaction to the social awareness and communitarian political struggles of the 1960s, but a profound culture of entitlement and self-actualization that makes it harder for Americans to attain the sense of continuity and community that arguably built both American society and most of modern society overall (Lasch 1979/2018).

The writings of Lasch and Wolfe must have seemed prophetic just a few years into the 1980s, when several of the trends spotted in these influential writings—escalating consumerism, increased focus on private self-actualization, the wider appearance of celebrity politicians and businessmen—just seemed to accelerate. And thusly it has, by all accounts, continued. It is still far too early to judge what the digital revolution and the profound transformation of mass communication in the 2000s will bring in terms of deeper changes to society and the individual's place in it, but there is no lack of qualified and able analyses of the effects of the internet and especially social media on individuals and communities (e.g. Jackson 2008; Baron 2008; Carr 2010; Twenge 2017). Others have, in similarly skilled and insightful studies, put the digital revolution in broader cultural and social context and argued that social media and the constant self-promotion it invites (or compels) individuals and especially the youth to engage in, is only one piece in the puzzle that Christopher Lasch and Tom Wolfe, among others, began to lay out almost half a century ago.

Thus there are highly capable and insightful analyses that depict current society as an "impulse society" (Roberts 2015; cf. Chap. 5), that claim that we are living in "the age of absurdity" (Foley 2010), and that we are currently experiencing the "triumph of emptiness" (Alvesson 2013/2022). Shortsightedness, immediate gratification, a profound individual sense of entitlement, and a deafening lack of attention to the values and virtues that took us here, seem to be the hallmarks of current society (for a deeper analysis, with proper historical contextualization, see Putnam 2000). And like in any other social transformation in the past, the standard-bearers of the change are the new upcoming generations, whereas the critics are usually old(er) commentators, who watch troubled and dumbfounded as the times run away.

Among the most elaborate critics of the current seeming intensification of these trends that have been spotted for several decades, is psychologist Jean Twenge. Reflecting Tom Wolfe's choice of words, Twenge has coined the term *Generation Me* for those born in the 1980s and 1990s, and in a series of books and articles diagnosed it with widespread (if not epidemic) narcissism, hugely inflated but very sensitive egos, difficulties in connecting with others, and a rejection of social norms, all of which has made anxiety, depression, and self-harm a common feature of adolescence and youth adulthood right from the start of the twenty-first century (Twenge 2006, 2017; Twenge and Campbell 2009). These are but some of the several very worrying observations and predictions in academic and journalistic works that deserve attention and scrutiny as part of public debate over the direction society is heading in, and the sociological analysis that parallels it, but most of that lies outside of the scope of this book and should therefore be seen as forming a deep background to the discussion in this chapter. The aspect of atomic individualism and its expressions most clearly relevant here is what Korean-German philosopher Byung-Chul Han has identified in his book *The Burnout Society*, where he ascertains that the Foucauldian "discipline society" has been replaced by the "achievement society". Han (2015) argues that the destructive forces of discipline and punishment that Foucault (1977) theorized and analyzed have been abolished and replaced by a deceitfully positive, affirmative, and encouraging spirit. Contemporary society is composed of individual "achievement-subjects", writes Han (2015: 38), and they do not "pursue works of duty" or subject themselves to "obedience, law, and the fulfillment of obligation", but seek "freedom, pleasure, and inclination", although it all, in the end, amounts to nothing but "self-exploitation", sustained by society's constant cultural reproduction of the message that only self-actualization and achievement that can be acknowledged and at a very minimum recorded in some digital medium, counts.

This profound cultural feature of current society is not reducible to consumerism, the enterprise culture, and market fundamentalism although as argued in Chap. 3, economization and related developments are in no small part to blame. The hegemonic role of the economy in current society is an unmistakable feature of the "achievement society", due to its way of satisfying desires and thus adjust expectations upward (Smith 2007: 57), and the powers of economic thinking and economic organizing in promoting the individual as both a consumer subject and an achievement subject (Chap. 3). Sociologist C Wright Mills acknowledged the role of

the economy in promoting an individualist culture in American life decades before the comments and analyses by Wolfe, Lasch, and Twenge: "The salesman's world has now become everybody's world, and, in some part, everybody has become a salesman" (Mills 1951/2002: 161).

What Entrepreneurship Really Is

We need not look deep into sociological and social-psychological analyses of current society to see that the individual and her achievement are viewed as the foundation and key resource of social life. Entrepreneurship might very well be the epitome of this historical development: An act of individual achievement that brings about progress and saves the self, the community, and society at large from whatever impasses they have been put in by fate, bad luck, incompetence, populism, rigidity, or indifference. Personal success is the key to collective success. Self-actualization is the key to a better future for all (Brandl and Bullinger 2009: 161).

Of course, even if this was true in a general sense—and there are reasons to speculate that it is, given the enormous success of liberal, democratic, capitalist societies and the individualism that build them up, in comparison with previous or contemporary collectivist and traditionalist societies—it is doubtful whether *entrepreneurship* really is what individual achievement, responsibility, and accountability should be about. Overgeneralization of a concept is always potentially hazardous, and should be avoided. Entrepreneurship has a very specific role in the economy and society, one that we risk losing sight of when expanding the general use of the term and making entrepreneurship into a vague but pervasive cultural ideal, and a universal solution (Jones and Spicer 2009: 70).

But also beyond the culturally promoted myths about entrepreneurship as the road to salvation for individuals, communities, and society as a whole, entrepreneurship is misunderstood. As Aldrich and Ruef (2018) have shown, major selection biases in the attention paid to innovation and entrepreneurship in popular culture, policymaking and public administration, and also academic research, have contributed to what they call a "Silicon Valley mania". Although only a tiny fraction of all entrepreneurship and innovation in the world happens in Silicon Valley, it is the "unicorns", "gazelles" and other rare events from that sunny region in California that get the media attention and set the standards for the policies adopted across the globe, for promoting entrepreneurial success (Hwang and Powell 2005; Boyle and Kelly 2010). Innovation and

entrepreneurship research plays along, neglecting the mundane reality and the empirically accurate in favor of the exciting but unrealistic, thus reproducing heroical myths about startups overcoming major obstacles, battling monopolies, perhaps even "moving fast and breaking things" in the process (see Chap. 5), and almost single-handedly turn grim prospects for a region into bright futures with growth, jobs, and sustainability (Brattström and Wennberg 2022).

It matters little that entrepreneurship in the real world is something rather mundane and dull, as entrepreneurship researcher Scott Shane (2008) has demonstrated. People are more likely to become entrepreneurs, that is, to start their own businesses, in countries that are poor and agricultural, than in countries that are richer and reliant on manufacturing. Most new businesses are started in "run-of-the-mill industries" such as retail, accommodation and food services, and construction. Most entrepreneurs are not in search of opportunities to exploit but form businesses based on what they are good at, and what they want to do. Most entrepreneurs get no funding from venture capitalists and business angels, but invest their own savings (Shane 2008: 28, 31, 38, 68–69, 89–91). Not much of this seems to matter for the popular image of entrepreneurs. It likewise matters little that most evidence suggests that policies that encourage startups are unnecessary, since there is no evidence that too few new businesses are started when such policies are absent, and a lot of evidence that such policies mostly lead to businesses that fail, that have very limited economic impact, and generate few new jobs (Shane 2008: 157). These and other irrefutable facts aside, current society still views the typical entrepreneur as "a hero with special powers that lead him to build a great company, which innovates, creates jobs, makes markets more competitive, and enhances economic growth" (Shane 2008: 160).

Most entrepreneurs are not like that. There is no specific personality trait shared by all successful entrepreneurs, quite the opposite—they seem all to be dissimilar (Rauch and Frese 2007; Kerr et al. 2019; Levine and Rubinstein 2017). Most entrepreneurs earn less than they would do from comparable employment (Åstebro 2012), and have weaker social security coverage (Hessels et al. 2006). There are also studies that show that entrepreneurs tend to experience more negative stress and anxiety, not less (Dahl et al. 2010; Hessels et al. 2017), and that many end up disappointed or even depressed (Jennings et al. 2016). All this gives good reason to argue, as Hartmann (2021) does, that "entrepreneurship is a terrible idea for most people, most of the time", because all available evidence suggests that

success in entrepreneurship is like winning the lottery—"wildly unlikely, and more or less random"—which in turn means that entrepreneurship should not be promoted among the many, but rather be viewed as something comparable to "a career in professional sports or the high arts".

The main challenge to a healthy and balanced view on entrepreneurship and innovation today is probably not that individuals are encouraged to seek self-actualization, but that self-actualization is so squarely identified with entrepreneurship, and that entrepreneurship, to a dangerously extensive degree, is empty. We will return to this theme in the next chapter, but with regard to incentive structures on the individual level, and most of all how they are encoded in culture, it is clear that the shallowness or even emptiness of the entrepreneurship ideal makes the prospects of actually achieving necessary and desirable innovation through entrepreneurship grimmer. Innovation requires hard work, and if the entrepreneurship industry sells an image of entrepreneurship that fails to acknowledge this vital aspect of the process, then it sells a lie.

Hunt and Kiefer (2017: 239) argue that the entrepreneurship industry is especially good at promoting the "'mythology' of entrepreneurship" and that this "mythology" might "disproportionately influence ill-equipped and weakly resourced aspirants". Their data and analysis consequently show that while consumption of the products and services of the entrepreneurship industry seems to be conducive of the propensity to enterprise, it also seems to be conducive of failure—on average, businesses founded by the "heaviest consumers" of the products and services of the entrepreneurship industry "experience shorter lifespans and fewer successful exits than businesses started by nonconsumers" (Hunt and Kiefer 2017: 249). This is, in itself, a devastating consequence, both for the individuals that are affected, and for society. Entrepreneurship education and extra-curricular activities to encourage entrepreneurship among students seem, in many cases, to just divert attention, and many students who pursue the promise of entrepreneurship end up wasting time and money on nothing; they eventually take a day job to pay for student loans and/or returning to their studies with disillusionment (Chen and Goldstein 2022).

Thomas Alva Edison, lauded as one of the greatest innovators and entrepreneurs of all time, is said to have claimed that creativity is "two percent inspiration and ninety-eight percent perspiration" (Jones 1932/2021: 371). Twenge and Campbell (2009: 290) conclude that "today's culture suggests that it is 50% inspiration, 10% perspiration, and

40% self-expression". Save for the fact that many acts of creativity—perhaps especially including technical and social innovation—do not gain anything from self-expression of its originators (or anyone else who seeks to share some of the credit, rightly or wrongly), this also begs the question of what gets lost when the "perspiration" part is reduced from 98% to 10%, or something like it. In other words, what gets lost if hard work is subtracted from the equation, and hot air takes its place?

It would not come as a great surprise if it would lead to less durable, sustainable, and profoundly less qualitative products, services, and policies. Emptiness instead of substance.

CHAPTER 5

Faster, Better, Stronger

Influential sociological works have conceptualized modernity as a state of social acceleration, which means that current late modernity is characterized by speed and change at extreme levels (Bauman 2000; Giddens 2002; Rosa 2013). Everything is expected to happen instantly, and swift progress is seen as imperative and something current societies and their inhabitants, are entitled to.

In the economy, critics have argued, this acceleration has created a shortsightedness and an almost complete focus on "getting the biggest returns in the shortest time possible" (Roberts 2015: 4). On consumer markets, social acceleration has created a situation where immediate gratification is treated "as if it were life's primary goal, to be pursued as efficiently and unapologetically as possible" (Roberts 2015: 9). Management scholars have likened the culture and ethics of speed with the fast-food industry (Ritzer 1993), and identified "fast management" as a widespread problem. Organizations are today "change-obsessed, attention-starved and over-hyped"; their managers use and reproduce "mass-produced ideas and lacks substance"; with the result that their members "suffer harmful effects similar to those of habitual ('supersized') fast food consumers" (Kärreman et al. 2021: 1).

It is in one sense reasonable to wish for acceleration in innovation. Because it is the source of wealth and well-being, and the likely solution to many (if not most) social and environmental challenges, people put great

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faith in innovation. It is therefore only expectable and understandable if society would want to see its processes accelerated in order to bring more improvements to more people, faster. Meanwhile, the speed imperative also risks breeding unsustainable practices, shortsightedness, and greed. Chasing higher speeds and swifter returns runs counter to careful improvement of ideas and inventions in a way that creates durable and sustainable benefits for the many. There is a major risk that the speed imperative makes innovators, producers and marketers favor the easily sellable and the easily disposable—more products sold, more revenue, resulting also in more waste and less satisfied consumers, in the long run and broader perspective. Speed also causes problems such as stress and mental health issues, and waste of natural and human resources (Hasu et al. 2012: 89).

Meanwhile, of course, progress is good and promises of progress are therefore appealing. Progress also has the rare quality of signaling inevitability in a very long historical perspective: Past achievements, current efforts, and future prospects are woven together in a sequence that becomes an unmistakable part of society's understanding of its capability to produce wealth, fight disease, and make cultural advances (Hobsbawm and Ranger 1983). Innovation embodies this idea of progress, and becomes very hard to be against, precisely since it is such a flexible term, and a concept "wrapped (…) in promises about its future impact" (Vinsel and Russell 2020: 11). This enables a near complete neglect of the question of whether something introduced as new really brings any real improvement, because it is not assessed on basis of any such improvement, but simply on basis of its novelty.

As reflected by the "linguistic turn" in the social sciences and the humanities, current society is characterized by "the realization that our language does not merely mirror the world but is instead partially constitutive of it" (Ball 1985: 740; cf. Rorty 1967). This means that the analysis of politics must entail efforts to understand its imagery and rhetoric, also (or especially) when seemingly aloof from anything real (Norval 2000: 316). On the highest level of abstraction, a joint understanding about the most favorable course of action becomes an ideograph, a "high order abstraction, representing collective commitment to a particular but equivocal and ill-defined normative goal", often a word or expression with general meaning that is politicized by being laden with meaning that goes way beyond plain semantics. It can be used as a political asset in the promotion of a specific cause, because it "warrants the use of power" and "guides behavior and belief into channels easily recognized by a community as

acceptable and laudable" (McGee 1980: 15). Put differently, a "myth" is institutionalized as "objectively given" and becomes hegemonic; "transformed into an imaginary" or "a horizon on which a multiplicity of demands may be inscribed" (Norval 2000: 329). Innovation is today a myth as much as it is real.

Selling Promises

The doctrinal shift in science and innovation policy in the West in the 1970s, which led to the second generation of innovation policy (Chap. 2), introduced "strategic" policies and programs oriented to "picking the winners" in science by prioritizing between investments and funding opportunities (Irvine and Martin 1984). This type of competitive prioritization creates a situation of competition between projects and investments, both aligning research funding systems with an enterprise culture (Chap. 3) and a general tendency of "projectification" seen in the organizing of public services and the economy, in the same era (Hodgson et al. 2019). Prompting champions of specific projects to promotion and marketing efforts, it leads to a strange quasi-market where investments are pitted against each other and made to compete for the attention of decision-makers and, by extension, media space, and public notice.

The expectation that only (or mostly) those innovation projects and investments that are considered *strategic* should be funded (Irvine and Martin 1984: 3–5; Stokes 1997), also introduced to project promotion campaigns the key feature of mobilizing expectations of future benefit or utility. Without this marketing component, projects will risk falling short in the continuously harshening prioritizing game (van Lente 1993: 10–11). Promises and expectations of scientific and technological breakthroughs therefore need to be made real and very tangible, also if they are uncertain (Hallonsten 2020: 248ff). By this logic innovation, which is inherently unpredictable, must be made into something very real in terms of what it will deliver to society (Valaskivì 2012: 149).

This is only paradoxical on the surface. In fact, in political campaigning, uncertainties are regularly turned into direct advantages. This is because all expectations entail a belief in a promise of some kind, and therefore expectations have an imperative built-in, that can give just the right momentum for a political campaign, if carefully but cunningly put to use. A purposeful political exploitation of a *self-fulfilling prophecy* (Merton 1948), this use of the power of expectations follows a simple logic: Once

a promise is presented and expectations of its fulfillment are spread, the politically responsible course of action is to act to (try to) fulfill the promises and (try to) meet the expectations (van Lente 2000). Politicians can go on suggesting new policies crafted to attain the promise for a long time, and though they always run the risk of being accused of exploiting the same promise over and over again, the promise itself is usually more powerful as a motivation for action. Thus could, for example, Richard Nixon successfully run for U.S. president twice (1968 and 1972) with the promise of ending the war in Vietnam (Scanlon 2009), and Donald Trump could almost succeed to win a second term as U.S. President in 2020, with the same promise he had made four years earlier, to "make America great again" (Dost et al. 2021).

The social theory foundation for this is ancient but powerful. The inherent uncertainty of expectations means that those who hold them do not know for certain that they will be fulfilled, but need to place trust in them. Trust, in turn, is not built on that which is justifiable by observation or reason: Whereas trust in the certain collapses at the first disappointment, trust in the uncertain is continuously reinforced by the threats of the alternative to the expected or hoped-for. In the view of the public, therefore, uncertainty necessitates (political) action to fulfill the expectation, and expectations become stronger political assets the more grandiose they are (Luhmann 1979: 79). Thereby, promises and expectations are transformed from prospects to be fulfilled (or not fulfilled), and into assets in the mobilization of action and support. When they are adopted by the public or by a significantly influential interest group, promises and expectations swiftly lead to demands of action to reduce the uncertainty they carry, by their fulfillment (van Lente 1993, 2000; Brown and Michael 2003; Borup et al. 2006).

This way, colossal investment packages in fuzzy but strategic efforts to accomplish a "circular economy" or "energy transition" or similar can be rather conveniently marketed and promoted with the help of promises and expectations. The enormous costs of saving the planet from climate change by leaving the fossil-fuel-based economy and society behind, are turned into investments that will achieve growth, innovation, job creation—and, for that matter, technical solutions and futuristic gadgets (like self-driving cars and ultra-low energy buildings) to cater to the vanity of the urban middle-class. Specific expectations are invoked for specific projects and programs—investments in hydrogen fuel cells and efficient batteries are promoted with reference to futuristic autonomous vehicles, but the next mega-particle-collider in Geneva is also promoted with promises that it

will reveal the mysteries of the origins of the universe—but there is also normative pressure. Everyone is compelled to take part in the game, expectations are institutionalized by reproduction in political discourse and by continuous use as political assets, and so the practice spreads. Generalized expectations, such as the promise that innovation produces economic growth and job creation, become subliminal points of reference for all actors in the field of innovation policy, as predicted by neo-institutionalists (e.g. DiMaggio and Powell 1983). The system-wide outcome of this process is that society as a whole begins to expect nothing less of innovation policy than that it makes promises of further job creation and further economic growth, in a never-ending spiral of more and more grandiosity. Everything must be (presented as) better, faster, and stronger—otherwise it fails miserably to gain any attention in the noise.

The phenomenon is neither new nor restricted to any specific part of society. Already in 1961, historian Daniel Boorstin published the book *The Image: A Guide to Pseudo Events in America*, where he demonstrated that a shortage of interesting news stories of the sort that the readership of the major newspapers in the United States in the immediate post-World War II increasingly expected, created a market for "pseudo-events". The logic of a pseudo-event, argued Boorstin (1961: 11), is that it is planned or incited by someone with the explicit purpose that it is "reported or reproduced", but that its "relation to the underlying reality of the situation is ambiguous". Alvesson (2013/2022) argues that "pseudo-events, pseudo-actions, and pseudo-structures" are increasingly prevalent in current society. They comprise of structures and patterns of behavior that are manifest and formalized, but only have symbolic importance. They should not be confused with the pure symbolism of ceremonial events and structures in society like commemorative celebrations, guards of honor, and awards, from which nobody expects any tangible consequences. Pseudo-structures involve pretensions of realness and consequentiality. Examples highlighted by Alvesson are "quality-assurance projects, committees, leadership programmes, many political 'reforms', organizational changes, and so on" (Alvesson 2013/2022: 16).

Organizations use pseudo-events all the time, in their advertising and the building of their reputation, sometimes to exaggerate the quality or attractiveness of what they sell, and sometimes to divert attention away from some irregularity or immorality in their operations. Social scientists, and especially organization scholars, have for many years documented and analyzed this, noting how attention to the (public) image and internal and

external communication take up increasingly larger portions of resources within organizations today. While, as Brunsson (1989/2002) convincingly argued, this gap can be a great resource for organizations who need to balance conflicting interests from different stakeholders (Chap. 1), it also risks leading to deteriorating quality or efficiency of core operations due to misplaced priorities, and the spread of cynicism, disbelief and alienation spreads among employees and many other crucial stakeholder groups (e.g. Schwartz 1991; Gabriel 2005, 2008; Alvesson 2013/2022; Graeber 2015; Spicer 2013, 2018).

Events and structures very much akin to pseudo-events and pseudo-structures play crucial roles in reproducing society's obsession with innovation and all its manifestations. Studies have shown how events play especially important roles in forming and maintaining the relationships between the actors that are engaged in building and upholding regional innovation systems and similar constellations mandated by the current interpretation of what innovation policy is supposed to be about (Lovering 1999: 379–380). The idea of such events, where innovation elites meet and reproduce discourse, is not to formulate policy or work out solutions for stimulating innovation in a region or sector, let alone accomplish such innovation, but to "transform the mindsets of the stakeholders, and to reaffirm and maintain the policy domain's position on the political agenda" (Hall and Löfgren 2017: 311). But the problem is, as we have seen in previous chapter, far wider. Billions of Euros and Dollars are continuously poured into projects, investments, and institutions that reproduce innovationism and the ideologically tainted beliefs in the entrepreneurial state. The current political climate seems to be favoring demonstrations of initiative and power of action in the face of grand challenges and the expectations and fears of the electorate, almost at any cost. The lure is great for politicians to engage in active innovation policymaking: Promising a better, faster, stronger economy and promising to achieve it with their initiatives. This obsession with innovation seems to be a powerful shaper of collective identity among politicians, bureaucrats, and business leaders (Valaskivì 2012: 148), and a powerful mandate to act.

The Entrepreneurial State

Innovation and entrepreneurship can (and will) create jobs, grow the economy, solve grand challenges, and make us richer and happier and more advanced. At least so they say. Any decision maker, taking part in

promoting this view of innovation as a cure-all, will look for a role for themselves to play in the fulfillment of these expectations and promises, in order to gain popularity or at least not appear as passive or out of touch with current times.

The idea of the *entrepreneurial state*, briefly mentioned in previous chapters and especially popularized in recent years by Italian-American economist Mariana Mazzucato, seems to give policymakers on all levels strong incentives to take action and use the tools available to them, to promote and achieve innovation: Big investments and programs to strengthen specific sectors and boost the development of specific technologies.

The political logic of promises and expectations is of course not part of the theoretical underpinning of the idea of the entrepreneurial state. Ultimately, it rests on one of the central tenets of the modern economic sciences, namely *market failure*. In its general use, market failure means any occasion where the profit interest of a firm, or the self-interest of an individual, is insufficient to accomplish what is perceived to be the greater good in economic terms, which leads to an overall net loss of economic value (Stiglitz 1989). Specifically for research and development (R&D), whose immediate results are often far from commercialization, the argument is that the non-excludability of much knowledge produced through R&D makes firms less prone to invest in R&D than would be optimal from the point of view of a whole sector or society at large (Nelson 1959; Arrow 1962). By extension, the non-excludability of (much) knowledge makes it a *positive externality*, which means that it will be of benefit to others in addition to those who invested in its development. These are the theoretical rationales, at least as expressed in the economic sciences and innovation studies, for governments to invest in R&D: no one else will, and the value of R&D itself, as well as through the expected spillovers from it, is important for governments to ensure.

But market failure is a theoretical argument and therefore a hypothesis (Ridley 2020: 273–274), which makes it problematic in two ways. First, any empirical study to confirm or refute the hypothesis of market failure will have to study both the supposed failure itself, and efforts to balance it, which will make it counterfactual and thus methodologically problematic. Studies of this type do exist, but are—quite unsurprisingly—inconclusive: It is difficult, at best, to judge whether government interventions to balance market failure in R&D work or not (e.g. Zúñiga-Vicente et al. 2014; Gustafsson et al. 2016). Second, the market failure hypothesis is also

empirically flawed: The supposed non-excludability of knowledge, meaning that anyone can copy what you do in R&D, which nullifies any so called first-mover advantage, is simply not correct. No one can (normally) copy the results of R&D—for the second mover, it takes almost as much skill and hard work to absorb new knowledge as it took for the first mover to produce it in the first place, if not more (Kealey 1996: 230ff). First-mover advantages are, it turns out, significant enough for firms to actually invest substantially in R&D, which they also do (Rosenberg 1990).

But the real question is whether governmental innovation policy aimed at subsidizing innovation, and balancing market failure, really works. In a fundamental sense, the "knowledge problem" famously identified by Austrian economist Friedrich Hayek (1945) makes the endeavor very challenging, as it puts into doubt whether any uniform policy or intervention, in any society with some level of complexity, can be efficient. The knowledge deficit of any centrally placed actor, in relation to the actors on the field, makes prioritizing difficult. Also a state with the greatest corporativist integration of varieties of special interests will have a disadvantage compared to more dynamic systems (like scientific fields and markets) when it comes to problem choice, problem formulation, and evaluation of possible solutions. Put differently, and somewhat exaggeratedly (in order to clarify the basic argument), no state actor can have an overview of all ideas being pursued by innovators out there that is sufficient to make the choices that are necessary to pick the winners (Sandström and Alm 2022). It has been tried, not without (some partial) success, but with disastrous consequences in broader and long-term perspective. The huge investments in R&D in the Soviet Union were, for the most part, centrally planned and were ultimately motivated by military aims. They produced scientific research of high quality—for one thing, quite a few Nobel Prizes were awarded to Soviet researchers, well into the 1970s—and also some innovation, but in both respects this system was clearly inferior to any country in the West that had a more pluralist and dynamic system. As we will return to in the final chapter of this book, innovation is unpredictable and rather disorganized, and can really only be achieved by fostering pluralism and variation. As summarized by Matt Ridley (2020: 280), "to pretend that government is the main actor in this process, let alone one with directed intentionality, is an essentially creationist approach to an essentially evolutionary phenomenon."

Lavish arguments aside, the problem of choosing what areas to bet on, and what firms and innovation projects should receive subsidies, is a

practical problem for any aspiring entrepreneurial state. Corporate R&D suffers from similar challenges when sizing up and reaching higher levels of complexity, but the limited "ownership competence" (Murtinu et al. 2022) of the state is more problematic given that it operates with resources that are the results of the hard labor of others, which makes wasteful spending particularly wasteful.

The knowledge problem is but one exponent of what could very well be called "government failure" to counterbalance the hypothesis of "market failure". Politics is, in and of itself, a struggle between different special interests. These special interests will take every opportunity to benefit from policies that they can have influence over (Niskanen 1975). On a general level, any policy measure will therefore run the risk of being captured by special interests, which means that rather than aiming for utility maximization on overall societal level, it will aim for utility maximization on individual or group level.

Purposive social action always has unintended consequences, changing the behavior of those it is aimed at (Merton 1936) and incentivizing beneficiaries of rewards or subsidies to adapt to terms and conditions rather than aspiring to quality or competitiveness in a broader or general sense (e.g. Muller 2018: 19–20). Direct and indirect subsidies handed out by public sector organizations tend to lead both public and private actors and entities in innovation systems to reorganize their efforts so as to maximize their eligibility for funding, and realign their activities to fit specific aims and purposes. Studies have shown that government subsidies tend to go to those who are good at applying for them, or lobbying for them, rather than those who need them (Karlson et al. 2021: 85). Programs are, allegedly, routinely "hijacked" by special interests so that resources are diverted away from intended goals and to "boosting cronies of the nation's rulers or legislators" (Lerner 2009: 11). Other studies have demonstrated that entrepreneurs who are productive enough on their own are not only in no need for these types of grants, but indeed abstain from applying at all, and instead use their effort on increasing their productivity (Gustafsson et al. 2020). This seems to imply an inverse correlation between productivity and effort put into acquiring grants.

Here, a word of caution. As has been repeated several times in this book, there is no simple and straightforward way of evaluating the prospects or outcomes of an effort to innovate, and hence it is also misguided to try to simply judge the usefulness or profitability of an idea or a project based on the level of productivity of a single entrepreneur and the level of

governmental subsidies to that same entrepreneur. It might very well be that in the very long run, subsidized innovation is the most beneficial from overall societal point of view. The problem, highlighted by Gustafsson et al. (2020: 459–460), is the seeming risk of emergence of a class of "subsidy entrepreneurs", who "find it relatively profitable to engage in grant-seeking activities compared to market production", and hence undertake "an unproductive form of entrepreneurship". Analogous to "rent-seeking", i.e. the systematic attempts by firms to increase their profits not by increasing their productivity but influencing public policy to give out subsidies, imposing tariffs, and the like (Krueger 1974; Helm 2010), such "grant-seeking" diverts resources from core operations including R&D and to applying for subsidies, creating an artificial and self-sustaining economy of subsidies for low productivity.

It should not have to be underscored that public sector bureaucracies are not spared from free-rider problems, nepotism, moral hazard that comes from information advantages of specialist civil servants over elected officials (and electorates), and other similar problems on individual level (Niskanen 1971, 1975). Quite the opposite, it is likely for such challenges to quickly and forcefully present themselves and compromise the theoretically very promising idea that firm subsidies neatly correct market failures and spur innovation in the private sector to the benefit of society as a whole (Gustafsson et al. 2016). There is also much to suggest that several peculiarities and nuisances of representative democracy have been accentuated in the past decades, as elections have come to be decided by the middle ground or the median voter, incentivizing leading politicians both on the right and on the left to focus on the interests of minorities in order to win elections. These minorities may both be very particular in their interests, and may shift rapidly. The result is often less actionable governments and a reduction of political initiative to a wide collection of special interests, more or less compatible with each other, and certainly not conducive of decisive action in urgent policy areas (Helm 2010).

The path-dependence of governmental support to certain areas should also not be underestimated. Efforts that first seemed very promising may, over time, prove to be less productive or even wasteful, but nonetheless kept in place. Politicians may be reluctant to make changes and remove inefficient policies in the fear that they are perceived as incompetent by the voters (Dur 2001), and keep programs and institutes in place simply in order to avoid taking the blame for major cuts in funding, and job losses, to specific sectors or regions (Kurth 1973: 139–145). Escalating

commitment bias, sometimes called "the sunk costs fallacy", also seems to contribute to a general inability to change a course of action and close down programs, also in the face of overwhelming evidence that they are inefficient and wasteful (Arkes and Blumer 1985; Whyte 1986). Once again, bear in mind that these problems are not restricted to the public sector but discernible in all large organizations.

There is no lack of studies that highlight the faults and inefficiencies of major governmental programs in specific areas that Mazzucato (2021) calls "missions", and that are currently very popular among national governments and the European Commission. An important part of the complex task of lowering the emission of greenhouse gases has been the development of ethanol as an alternative fuel. Billions of Euros and Dollars have been invested, by public and private actors alike, on many places of the globe but most conspicuously in Europe and the United States. A sizeable ethanol industry began to develop in the United States already in the 1980s, but it took until the early 2000s before major governmental subsidies were introduced, and leading politicians started putting (part of) their faith in this alternative fuel as a means to combatting climate change (Skidmore et al. 2013). However, studies suggest that the environmental benefits of ethanol as a fuel will be comparably small, and that production and distribution costs outweigh benefits (Pimentel 2003; Hahn and Cecot 2009). A broad effort in Northern Sweden to make ethanol from cellulose began in the mid-1990s, with support from the national government and high ambitions to not only produce an environmentally friendly substitute for gasoline, but also to make a distant rural region competitive again. Millions of Euros have been spent by the Swedish government and by universities in the region, but promises from the CEO of the publicly owned firm in charge of the venture turned out to be empty: The technology was immature and results farther down the road than envisioned. To dampen the million-Euro-losses that had started to accumulate, the company began importing ethanol from Brazil, built plants in Poland and Hungary, and attempted to grow sugar canes for ethanol production in Tanzania, Mozambique, Ghana, and Togo (Sandström and Alm 2022: 254–257). In spite of this failure, the effort kept getting very positive media attention and received a number of local and international awards (Sandström and Alm 2022: 263). The example should be highlighted as a warning to anyone with plans to have the state act 'entrepreneurially'.

The Innovationists

One of the peculiar features of the current innovation ideology (Valaskivì 2012; Godin and Vinck 2017; Vinsel and Russell 2020) is its regionalism or provincialism, which stands in some contrast with the otherwise frequently invoked ideas of globalization as a force of good. Regionalism has been an important factor for mobilizing initiative and enthusiasm around innovation since at least the late 1990s, when scholars specializing in economic geography began promoting a new view of regional development built around ideas of geographical proximity as conducive of innovation and development, and patterns of the spread of "tacit knowledge", including the local concentration of talent and "spillover effects" from universities and high-tech industries (e.g. Morgan 1997; Cooke et al. 1997; Maskell et al. 1998). Its most high-flying variety was offered by celebrity consultant and university professor Richard Florida, whose theory of the "creative class" and its alleged habit of agglomerating in cities and regions with a high concentration of tolerance, talent, and technology became famous a few years into the 2000s (see e.g. Florida 2002). It has since sunk in popularity and been dismissed in systematic examinations as insufficiently underpinned and thus largely empty (Peck 2005; McGuigan 2009). But regionalism in innovation policy has not vanished, in spite of its paradoxical combination of globalism and territorialism (Hall and Löfgren 2017: 314).

While certainly an attractive and persuasive bundle of ideas that evidently has enough lure to gather large masses of powerful supporters in government, industry, and academia, there is much to suggest that in many aspects, the "regional innovation systems" approach is scientifically deficient and a poor guide for policymaking (Lovering 1999). Academic studies and consultancy reports in this tradition often convey a reductionist and generalist view on regional development, seemingly pretending as if all regions everywhere develop according to the same patterns. They thereby fail to take into account the geographical, political, cultural, social, and political specifics of regions, and pay little attention to what is actually taking place in terms of research and development (and training) in the universities, research institutes, and firms that are supposed to be the motors of these regions (Hallonsten 2016: 204–205). They use generalized and aggregate indicators and formulas for economic growth and productivity, transferring them over between contexts and extrapolating wildly (for a conspicuous example, see Hallonsten 2020: 139–140, 259ff).

Above and beyond this, the models and the view of regional development promoted in these studies embody a central goal conflict that they fail to give any clue to how to resolve: Attempts to strengthen the competitiveness of regions usually come with ambitious plans to attract talent and competence from abroad, which presupposes a relative openness and free flow of people and knowledge across borders, something that the regionalists also usually pay lip service to. But the risk that people, knowledge, and talent flow the other way generally goes uncommented. Unless the talented and competent people are made to stay in the region, investments in them will mainly benefit other regions, to which they move and take up employment in the future. And even if these highly coveted people are convinced to stay for a long time, or forever, a fair degree of loyalty must be instilled in them if they are not to contribute to inadvertent "knowledge spillovers" into other regions elsewhere.

Nonetheless, the regionalism and the state interventionism seem to work politically. In the current political environment, targeted interventions and subsidies are apparently easy to justify. Which makes sense: The political economy of such active support is vastly different from that of removing barriers and counteracting the influence of special and vested interests: You get few or no enemies, but potentially many powerful friends, from giving out active support. The costs are shared by the anonymous collective of taxpayers. Removing barriers and combating vested interests, on the contrary, comes at substantial political costs in the shape of powerful enemies; moreover, the benefits are significantly less clear (Wennberg and Sandström 2022: 10).

But there are also other incentives. As already discussed, current society's obsession with innovation makes up a strong political mandate, promising solutions to challenges and a better future for all, acquired through growth and job creation. The benefits of decisive political action—also for decision-makers personally—are significant: There is huge reward, not least socially, of being part of the innovation elite that gathers businesspeople, politicians, civil servants, academics, and consultants, join forces with them to achieve a dynamic regional innovation system—perhaps even "Europe's most innovative region!"—under imaginative slogans and visionary artwork (Andersson Cederholm and Hall 2020). The collective identity of these elites is "innovationism" (Valaskivì 2012)—a belief system where ideas and shared convictions about innovation, what it is and what it means, forms the basis of activities, rather than concrete actions to achieve innovation.

The foundation for all this is of course the second and third generations of innovation policy, which build on the fundamental assumption it is systemic and inter-organizational, involving several actors in heterogeneous systems. The scientific foundation itself is robust (Freeman 1987; Lundvall 1992), and as a view of innovation, it carries just as much weight as any scholarly perspective. But when turned into policy, it has peculiar consequences. One is that it upholds and inspires an innovation elite, consisting of actors from many businesses and sectors, whose continuous interactions at events (or pseudo-events) and in projects are interpreted as action of consequence and importance (Valaskivì 2012: 150; Hall and Löfgren 2017: 314; Andersson Cederholm and Hall 2020: 1416). Since national governments, and the European Commission, view the interplay and interdependence between actors from different parts of society as a prerequisite for innovation, this means that firms, public authorities, universities, semi-academic research institutes, local and regional governments, and civil society organizations are all supposed to collaborate to achieve innovation and thus economic development (Hall 2019). The healthy competition of markets, and the necessary antagonism of politics, are both put out of play in these inter-organizational systems where actors are expected to cooperate and co-produce creative environments (or "spaces", or "arenas", or whatever is the word of the day) where innovation can thrive (Hall and Löfgren 2017). Whether or not such artificial collaborations are actually conducive of real innovation is not the issue. Ideas and beliefs about regional innovation systems, "clusters", and "triple helix" constellations are more important than proper preconditions for real innovation. But the systemic view is also quite vague as basis for policy, and so continuous negotiation ensues (Hall 2019: 35), and projects easily become the only reliable and solid entities in the rather free-floating system of events and network relations that the innovation elites maintain. Innovation policy, and innovation itself, becomes *projectified* (Hall 2019), with chronic shortsightedness as a result.

Therefore, although policymakers, administrators, business leaders, consultants and academics can be expected to find their ultimate inspiration and reward in the accomplishments connected with their occupation, the social rewards and the accumulation of social capital by gaining access to e.g. prestigious social events and networks should not be underestimated as a factor in the complex of incentives that lure politicians to launch initiatives and projects, and sustain innovationism. It seems indeed as if the idea of the "entrepreneurial state" actually "gave policymakers

what they needed, when they needed it"; providing politicians and government agencies with a "flattering message (…) highlighting them as heroes and visionaries" (Wennberg and Sandström 2022: 10). Mariana Mazzucato recounts the story herself, in the book *Mission Economy*, of how "public figures on two continents"—Democratic congresswoman Alexandra Ocasio-Cortez and Democratic senator Ed Markey in the United States, and president of the European Commission Ursula van der Leyen—took on "vision and leadership" and launched the U.S. "Green New Deal" and the "European Green Deal" (Mazzucato 2021: 139ff). In the latter case, Mazzucato advised the European Commission on the design and implementation of the program, which like its North American counterpart includes billions of Euros in subsidies and cheap loans to mission-oriented projects to develop sustainable technologies and cutting emissions, all with the overall aim "to make the EU economy and society carbon neutral by 2050" (Bongart and Torres 2022: 170; Karlson et al. 2021).

It would be comforting to believe that it would work. And there are a few conspicuous and successful examples in history, such as the Manhattan Project's quest to build the first atomic bomb, or Kennedy's promise to put a man on the Moon before the end of the decade, which were kept. But as Harford (2011: 91) argues, "these examples are memorable in part because they are unusual". Moreover, there are many examples of groundbreaking scientific discoveries and transformative innovations that have been based on work that funders have turned down and advised against, and several cases where these authorities also later have humbly conceded that "we are glad you didn't follow our advice" (Harford 2011: 105–108).

Move Fast and Break Things

The emperor of the new digital economy, Facebook founder Mark Zuckerberg, is famous for his business philosophy of "move fast and break things" that has reached prominence both in industry and among innovation policymakers (Taplin 2017), and spread an extreme view of innovation as something necessarily hasty and even thoughtless (Vinsel and Russell 2020: 6ff). There are two flaws with it.

First, institutions, standards, and maintenance are as important to innovation as are creativity and *Heureka moments* (to the extent that these at all exist). Maintenance sustains success, also in innovation, and it requires "good planning that takes an organization's preexisting culture and values

into account" (Vinsel and Russell 2020: 142). As development economist Albert Hirschman wrote in his renowned book *The Strategy of Economic Development*, "it is far easier to start an industry than to keep it operating efficiently over a period of several years" (Hirschman 1958: 39). While there is much relevance and reason to the argument that current society needs continuous innovation and growth to preserve its status quo and reproduce its structure (Rosa et al. 2017), any reasonable look at empirical evidence will also show that maintenance of existing structures and technologies is just as important to keep society going, as is innovation, renewal, and growth. Most of the technologies that surround us and that we crucially rely on for our daily life and for the functioning of society are old rather than new, and quite ordinary or even dull (Edgerton 2007). They "are not revolutionary, are not innovative in any significant way", and in most cases, we rely on them in such fundamental ways that we certainly don't want to see them "disrupted" by any "creative destruction" (Russell and Vinsel 2019: 255–256). But even more importantly, it is a mistake to view stability as the opposite of change. Rather, the two most often presuppose each other, and the maintenance of existing structures and technologies is therefore crucial for enabling innovation.

Philosopher of science Thomas Kuhn (1959/1977) conceptualized the "essential tension" between innovation and conventionality: all knowledge claims must be novel in some sense in order to be relevant, but also conventional and adhere to existing knowledge and practice, in order to be comprehensible. Sociologist Robert Merton (1949/1968: 185ff) analyzed the tension between conformity and deviance on the basis of the fundamental sociological supposition of a duality of structure and (individual) action, and showed that constructive deviant behavior brings necessary and revitalizing renewal to societies when it takes place within existing institutions, and is done on basis of existing structures. Neo-institutional organization theorists later argued that all organizations are dependent on shared practices and norm systems that breed social legitimacy, which is crucial for survival on long and short term (Meyer and Rowan 1977; DiMaggio and Powell 1983), and that the stability of highly institutionalized settings, like formal organizations and the legal frameworks and other practices they rely on, is conducive of innovation and change (e.g. Brunsson and Jacobsson 2000; Mahoney and Thelen 2010). Stable institutions, and standards, are absolutely necessary in order for variety and development to occur and be useful.

The role of standards and standardization in technological innovation has been studied in some influential works, not least the emergence of "dominant designs" and conventions in the manufacturing and use of technology (Utterback 1994; Bijker 1995). Recently, the dichotomy of standards and innovation, and how standards matter crucially in innovation processes, have been acknowledged and discussed in greater detail, on basis of both theorizing and empirical investigation (e.g. Hawkins et al. 2017). As the president of the American Standards Association reportedly argued in 1924, standards are "the liberator that relegate problems that have already been solved to the realm of the routine" (McCray 2016). In itself, therefore, this "liberator" is a core driver of innovation and progress, because it enables innovators to move on to new things, and to use existing technologies in their search for new knowledge.

The second flaw of the "move fast and break things" idea of innovation is in one sense more self-evident: All creative and truly transformative work requires deep reflection (Honoré 2004; Berg and Seeber 2016). Innovation, specifically, is something that usually both takes time and is unpredictable, which means it must be pursued with patience and a pragmatic flexibility toward unexpected turns of events. Innovation is "nearly always a gradual, not a sudden thing" (Ridley 2020: 240), and usually includes applying knowledge and judgment methodically to solve problems in a real and deeper sense and with a holistic view. Although sudden and ground-breaking innovation sometimes occurs, it is much more often "experimental" in nature, meaning that it proceeds by trial and error, through collaboration and recombination, over long time, much like art produced by old masters after along life of experimentation and refinement of their talent (Galenson 2006). Rather than to "move fast and break things", therefore, innovation is typically achieved through the craft ideal to "do a job well for its own sake" (Sennett 2009: 9). But the economy of today seems instead to draw us all into "a system that is too fluid and mobile for the desire to do something well for its own sake" (Hasu et al. 2012: 88).

This "speed imperative" threatens long-term and profound renewal, in that it dramatically shrinks the capacity for critical reflection and deep engagement with problems and their solutions (Hasu et al. 2012: 93). The digital economy and its constant flow of fast information accentuate this problem and deepen the risks that deliberation is abolished in favor of the shallow. "Online or off, we become overly focused on finding new

information, while our motivation to dig deeply into the content at hand diminishes. We become more distractible, less able to differentiate the meaningful from the merely stimulating" (Roberts 2015: 123).

But the shortsightedness that plagues current society also has a purely economized side, namely, what Paul Roberts has called *financialization*. This means, "the way the mind-set of the financial sector becomes the mind-set of the culture at large" (Roberts 2015: 105), but also the view within business that everything other than maximized short-term financial gains is "inefficiencies to be minimized or eliminated entirely with cost-cutting technologies and lean strategies" (Roberts 2015: 9). Managers today tend to "cut everything possible" and maximize the profits of shareholders (and themselves), instead of reinvesting in their companies, and there is an alleged broad acceptance in politics and society at large that cutbacks in order to grow profits on short term are both reasonable and responsible action (Roberts 2015: 51–52). Surveys have shown that executives are ready to delay or evade investing in projects with likely long-term profits, and cut spending on research and development and maintenance if it would help them meet the earning targets of the current quarter (Roberts 2015: 94).

Investors, whose role in funding innovation projects has traditionally been very important, seem to have similarly changed their expectations to shorter time frames, and formed what Bennett Harrison calls "impatient capital" (Harrison 1994: 214). As an example, Richard Sennett (2006: 40) notes that whereas in 1965 American pension funds held stocks on an average for 46 months, by 2000 much in the portfolios of these institutional investors turned over on an average of 3.8 months. Investors detached from the operations of the companies they invest in, usually pension funds and other investment funds, are nowadays what Erixon and Weigel (2016) call "gray capital", caring significantly less about what companies actually do, and increasingly more about only making financial gains as fast as possible. This is, however, not the only feature of the current global business landscape that favors shortsightedness over long-term planning and the superficial over the profoundly transformative. Managerialism (Chap. 3) has brought the triumph of "organization men" over entrepreneurs and creative free-thinkers, and favors short-term profits that can be easily presented in quarterly reports and shown to superiors, and so the "talk about agile adaptation, disruption, and revolutionary innovation" remains just talk (Erixon and Weigel 2016: 16).

Just as with the institutionalization of expectations in the science policy system's prioritization games (above), managerial shortsightedness is infectious, and sold to companies by consultants who live off quick returns. American giants like *Enron* and *Sunbeam* are examples of companies becoming "dysfunctional or corrupt" after falling prey to elaborate plans of attracting "empowered investors" that are after "short-term rather than long term results" and need to be seduced by empty talk and dazzling surfaces (Sennett 2006: 39–41). Apparently, stock markets react positively when companies adopt the latest management fashion, regardless of its suitability or correspondence with real needs of the organization in question (Nicolai et al. 2010). The growing habit of major companies to purchase their own stock in so called "buybacks" is a very shortsighted way of increasing the company's value, and was illegal in the United States until 1982. Buybacks takes shares out of circulation and means that the supply of remaining shares is artificially restricted which drives up the price, and quickly became a way for managers to boost share price (and, in many cases, their own bonuses) swiftly and efficiently without having to invest in new business activities or make other costly interventions. Today, it is not uncommon for tech giants like Microsoft to spend more on share buybacks than on R&D (Roberts 2015: 157). Clearly, the shortsightedness of financialization of the corporate world is a potential threat to real innovation, but goes together surprisingly well with empty innovation.

CHAPTER 6

Empty and Real Innovation

There is a paradox in the historical development of innovation and society's view on innovation: The growing obsession in the past few decades, and the rise of innovationism, seems not to have coincided with an intensification of real innovation. In fact, there are signs that the correlation even is negative.

Chapter 2 of this book showed that society's view on innovation as a cure-all is rather new. Meanwhile, *real innovation* must have happened constantly during times when innovation was a word with negative connotations. It flourished in times when innovation was acknowledged by scholars and pundits as important to social and economic development but not something governments and other decision-makers and pundits needed to meddle directly with, and certainly not talk about all the time, in fancy slogans, glossy brochures, and grandiose strategy documents. Put differently, when hard work was put into innovation—and a lot of hard work is usually needed to really innovate—it seemed to have gone quite well and innovation was the main force to push our societies forward in a rather astonishing economic and social progress. But when effort instead has been increasingly directed at talking about innovation, launching projects and programs to spur innovation, and hold events about innovation, there seems to be far less action. In one way, this makes perfect sense: In organizations whose resources are limited—and most organizations' resources are—every minute and every thought spent on empty innovation means one minute and one thought less spent on real innovation.

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Benoît Godin, who has chronicled and analyzed the development and transformation of innovation's place in society in greater detail than anyone else, concludes that the legitimacy and authority that innovation has today is almost incontestable, and historically unprecedented (Godin 2015: 3). However, the way the concept of innovation is used today, in practical policy- and decision-making, is far too abstract, general, and superficial for it to capture anything of consequence. Innovation is today, to significant degrees, an empty policy concept that risks being counterproductive or harmful for the economy and for greater society. Throughout this book, a number of historical developments have been outlined and analyzed that hopefully can help explaining how it has come to be this way. Economization, managerialism, bureaucratization, the growing role of expectations and promises in policymaking, the shortsightedness produced by social acceleration and seen especially in consumer markets and in the financialization of the business world and of politics, all arguably contributed to a situation where it is apparently more important to talk about innovation than to do real innovation. In other words, a society where innovation has become empty.

In this final chapter, we will first outline some possible harmful consequences of all this, thus summarizing the argument that society's obsession with the new is an unsustainable condition and counterproductive for real innovation. Thereafter, we will look to alternatives, discussing what innovation really is and how it really works, and use this as a basis for laying out a path forward, where innovation ceases to be empty and retakes its role as crucial factor for progress.

Consequences

The politicians, bureaucrats, businesspeople, and academics that take part in the perpetuation of society's obsession with innovation, all have in common that they view innovation in very positive terms—arguably, too positive—and seem to believe in an almost magical capacity of innovation and entrepreneurship to create jobs, grow the economy, solve sustainability challenges, and make life better for everyone. This overconfidence has metamorphosed into "innovationism", a belief system or ideology that is conceptually distinct from innovation in a real or technical sense (Valaskivì 2012: 133). Innovationism has no intrinsic capacity to improve anything. Quite the opposite: It entails a strong appeal to national or regional

identity (Chap. 5), combined with a constantly invoked message of competitiveness. This means that on a very subtle level, it risks turning its overpositive message into a rhetoric of fear of falling behind in the highly competitive and globalized knowledge economy. Innovation is often presented as the only means for national (or regional) survival in a hostile world. It is not uncommon for this to be summarized with the catchy but rather intimidating phrase "innovate or die" (Hasu et al. 2012: 90). In this sense, innovationism is fundamentally dishonest, as it pretends to play on feelings of optimism but breeds a worry of being left behind (Vinsel and Russell 2020: 11). Such a rhetoric of fear, especially if indirectly deployed using grandiose slogans and a dazzling surface, is arguably counterproductive both on overall societal level, in the long run, and specifically in relation to those young minds that are necessary to encourage and stimulate to innovate.

Other destructive consequences of innovationism, and of society's obsession with entrepreneurship and growth, are of course more plain and concrete. Among the most obvious ones—already hinted in previous chapters—are wasteful spending. The huge and centrally planned programs of "the entrepreneurial state" (Chaps. 2 and 5), have been amply criticized on theoretical and empirical grounds. Especially questionable is the seeming lack of efficiency with which the programs launched under the auspices of the entrepreneurial state ideology do actually support technological development and sustainability transitions (Harford 2011; Karlson et al. 2021; Wennberg and Sandström 2022; Larsson 2022). Similarly, the entrepreneurship industry (Chap. 4) seems to be a formidable source of free money for those capable of selling a product of service to these would-be-entrepreneurs. Veblenian entrepreneurship—amounting to the "conspicuous consumption" of such products or services to maintain a particular lifestyle (Hartmann et al. 2020)—becomes really problematic when taxpayers' money or private capital are spent to support such lifestyles, under the pretext that it is spent to support the development of the economy (Brattström 2022: 148).

But the risk of goal displacement—ultimately connected to the Hayekian "knowledge problem" (Chap. 5) and the slim chances of centrally placed bureaucrats or other decision-makers to have the competence to bet on the right horses—is far more consequential. Not only does it add to the problem of wasteful spending. In the long run, goal displacement means in all likelihood that society is robbed of great ideas and great

innovations, simply because government subsidies go to those skilled at applying for them, squeezing out the really promising projects, individuals, and ventures.

Another form of goal displacement is the risk of lack of proper attention to maintenance of existing infrastructures, technologies, and institutions, which is crucial for humanity and society, and its use of technology (Russell and Vinsel 2019: 249–250). Innovationism tends to actively devalue all those vital infrastructures, technologies, and institutions that do not benefit from disruption and creative destruction—and the work of all those who keep them running—but also to ruin the capacity of these institutions and infrastructures and people to form the foundation on basis of which real innovation can occur. Empty innovation is therefore empty in two major respects: There is not much real innovation going on, and not much maintenance of the institutions and infrastructures that can enable people to make it happen anyway.

The entrepreneurship industry, and the "conspicuous consumption" of Veblenian entrepreneurship, suffers from essentially the same type misconception: that innovation and entrepreneurship is all about the *heureka moments*—it is not (see below)—and the spectacular achievements of charismatic individuals. It therefore ultimately rests on the widespread bundle of myths, around what entrepreneurship is and how it works, that Shane (2008) and others effectively shattered (Chap. 4), and that have also been shown to strongly contribute to entrepreneurial failure. The images and cultural beliefs produced by the entrepreneurship industry may not enable prospective entrepreneurs to make better decisions and take better action—quite the opposite, they may very well hinder prospective entrepreneurs from realistic self-evaluations of their real abilities to enterprise because they simply show a false image and a false ideal to strive for.

If people believe entrepreneurship myths, and act on these myths, this creates significant risks for individuals and their surroundings. Anyone considering starting a business or otherwise venturing to do something out of the ordinary must have as solid, complete, and accurate information as possible about the prospects and the road ahead. If entrepreneurial efforts are based on false and over-optimistic conceptions about what it takes to succeed—or, indeed just what it takes to get going—and fail to acknowledge what the alternatives and opportunity costs are (Shane 2008), we have a recipe for disaster. Therefore, as Brattström (2022: 151) argues, "it is important that aspiring entrepreneurs enter the entrepreneurship industry with their eyes open". Which they don't, currently, at

least not enough. For the individuals involved, the consequence can be dire, but also procreate across society. Shattered dreams and disillusionment may seem like small matters in the grander scheme of things, but when they add up, they become the grander scheme of things.

Misunderstandings

Innovation was always about challenging the status quo, and as the historical exposé in Chap. 2 showed, different societies have viewed this differently. Today, however, it seems innovation itself is the new status quo. Current society runs on "dynamic stabilization" (Rosa et al. 2017), meaning that it needs constant innovation—or at least constant appearance of innovation—to be able to preserve our way of life and the stability of our societies:

> "Without expansion, innovation and accumulation, companies close down, jobs are lost, and, by consequence, public revenues decrease and expenditures increase, and the ensuing monetary and fiscal crisis can put political legitimation at risk, too. […] Thus, capitalist economies do not need growth or innovation to achieve some new goal or progressive state, but just in order to keep the status quo and to reproduce their structure. Without it, they lose their economic competitiveness and their social stability." (Rosa et al. 2017: 54)

This implies that growth curves must be exponential, which itself is unsustainable. The conclusion, however, that unsustainable growth and escalation is the new normal for our societies, builds on a very narrow and shortsighted understanding of innovation as something that can be planned by politicians, carried out by charismatic entrepreneurs, and commercialized with a swift turnover to maximize revenue for the local or regional economy, and the state within whose borders it is located, so that this state and the region it prides itself with having developed (or even created) can advance on some ranking list of high scores on some shallow metric of global competitiveness or similar. Hartmut Rosa's critique of modern and late-modern society's dependence on continuing innovation and continuing growth, and the unsustainable state of this "dynamic stabilization", points out several flaws with the current economy, but is nonetheless overly generalized and indiscriminate. It is important that the role that economization and the spread of the enterprise culture (Chap. 3)

play in making innovation empty are criticized without conflating these developments with innovation as such.

Because innovation is not only a process that makes rich societies even richer, at the expense of poorer people elsewhere and eventually also at the expense of the planet itself. Innovation—real innovation—is also a way of distributing wealth to the poor, and of limiting industrial exploitation of natural resources. Similarly, economic growth is not only a perverse objective of ruthless politicians and business leaders who—quite absurdly—are not content with their affluence but still compete for even more. Sure, this type of ruthless hunting of further economic growth for its own sake is a main cause not only of empty innovation (as explicated in this book), but also exploitation and waste. But economic growth is also an unavoidable consequence of innovation in its most fundamental and important sense—the "process of constantly discovering ways of rearranging the world into forms that are unlikely to arise by chance" (Ridley 2020: 2) to the benefit of humanity and the world—and therefore economic growth can obviously also be caused by the good, the humane, the constructive, and the profoundly enriching. Put differently, neither innovation or economic growth should in themselves be demonized nor condemned. Empty innovation, and economic growth as an end in itself, should.

Innovation is good, if it is understood correctly and promoted carefully and thoughtfully. We will return shortly, in the next section, with a systematic discussion of how innovation really works and some suggestions of how it can thus be promoted. Let us first ponder briefly why it is that there are so many misconceptions out there, that prevent a successful and balanced innovation policy in government and organizations.

Chapter 4 discussed at length the entrepreneurship ideal and its probable roots and causes in the extreme individualism of our society, and the crowning of individual self-fulfillment as the ultimate goal for people and societies. An integral part of this profound cultural expression of our times is the elevation of individual achievement and momentous breakthroughs to a high cultural standing. We all seem to love the story of the lone genius, working against all odds and stunning us all with some masterpiece artwork, athletic feat, or breakthrough technical solution. The people that play the main parts in such stories are, furthermore, just as prone as anyone else to try to magnify their own importance and downplay the role of competitors and predecessors (Ridley 2020: 244). The stories of the lone geniuses are, moreover, not only expressions of popular culture, but seem also to answer to a great need of humans, and humanity as a whole, for

simplifications and generalizations. This makes the message rather easily sold: Innovation and entrepreneurship are depicted as things you can learn, do, promote, evaluate, and appreciate in general terms and with exclusively positive connotations. Put differently, while it may be impossible to find or write recipes for innovation and entrepreneurship, it is still possible to sell such recipes, and there is apparently a major market for them. This goes for the universal solutions offered by economization and managerialism (Chap. 3), the services and products of the "entrepreneurship industry" (Chap. 4), the promises of political campaigns (Chap. 5), and the pretention that major challenges to our societies, even our whole civilization, can and should be solved by implementing a "mission economy" where governments or supra-national bodies like the European Commission point the way and allocate billions of Euros to "sustainability transitions" and the like (Chap. 5).

The latter point is but one of many indications that our current research policy and funding system, and the whole array of infrastructures to promote innovation and entrepreneurship in society, are set up to not stimulate innovation at all. They are usually over-bureaucratized, incarnating the fundamental principle of administrative rationality, namely control, predictability, and risk-avoidance. They are set up to support and fund a continuous stream of "can't-go-wrong" projects, with "more emphasis on forestalling failure than achieving success" (Harford 2011: 109). Managers, funding agencies, and politicians usually want swift turnover of their money and quick proofs that they made the right decision, and are therefore prone to make safe bets and support the predictable. This means simply adding pieces to a puzzle, which is a pragmatic approach to discovery, invention, and innovation that will be successful in the short run but eventually run out of steam and moreover, bore us all to death.

Betting on the safe and the easily evaluable often means losing the truly innovative. The intentions behind may be sincere, but the outcomes are meager or worse—a dazzling surface and a theater of dreams, with nothing of substance behind it, only an endless waste of money, talent, and effort.

"Politicians believe that innovation can be turned on and off like a tap" (Ridley 2015: 133). We should not believe them. In fact, we should refute any claim, from anyone, that they are able to increase the rate and quality of innovation in general (Vinsel and Russell 2020: 36). For that ever to work, innovation—real innovation—is way too serendipitous, gradual, collaborative, evolutionary, and unpredictable.

Real Innovation

The Hollywood movie *Charlie Wilson's War* pictures the collaboration of US congressman Charlie Wilson and CIA operative Gust Avrakotos to arm the Afghan mujahideen during the Soviet-Afghan war in the 1980s, which became an important feature of US foreign policy under the name the *Reagan Doctrine*, arming anticommunist and anti-Soviet resistance movements across the world (Downing 2018: 110). Toward the end of the movie, Avrakotos (portrayed by Philip Seymour Hoffman) tries to caution Wilson (Tom Hanks), not to jump to conclusions regarding the virtue of their effort to help chasing the Soviets out of Afghanistan, by supplying them with heavy armory to shoot down helicopters:

> "Listen, not for nothing, but do you know the story of the Zen master and the little boy? There is this little boy, and on his fourteenth birthday he gets a horse. Everybody in the village say, 'How wonderful, the boy got a horse!' The Zen master says, 'We'll see.' Two years later, the boy falls off the horse and hurts his leg and everyone in the village says, 'How terrible!' The Zen master says, 'We'll see.' Then, a war breaks out, and all the young men have to go off and fight, except the boy can't because his leg is all messed up. Everyone in the village says, 'How wonderful!' The Zen master says, 'We'll see.'"

The true origins of this fable-like story are unknown, but by all accounts, it is very ancient. Varieties exist in Confucian and Daoist teaching, as well as in the bible and in several classical works of Western literature (including Shakespeare), and the moral can be summarized with the *blessing in disguise* proverb.

The chief lesson in the present context is of course that human achievement, be it based on individual creativity and ambition or on societal progress (in most cases, it is both at the same time), is inherently unpredictable. But the *Zen master and the Boy* fable can be of further great help, because it is also crucial to acknowledge that success and failure are not one another's opposites or mutually excluding, which is how contemporary culture unfortunately often picture them, but difficult to distinguish or even the prerequisites of one another.

Though probably true in most areas of life, the inseparability of success and failure is particularly evident in scientific research and adjacent work of improving human understanding and control of the physical and social world—in other words, innovation. To a great extent, science and technological development live off failure—in short, without failure there would

simply be no science and no technological progress, for two fundamental reasons. First of all, one has to fail many times to be able to succeed. According to a proverb attributed to Henry Ford, failure enables one to start over more intelligently (Farson and Keyes 2002: 30). Being wrong, no matter how much it makes us feel idiotic and ashamed, is integral to human cognition. "Thanks to error, we can revise our understanding of ourselves and amend our ideas about the world" (Schultz 2010: 5). Second, it is also the case that unknown successes are hidden and only possible to expose with failure (Firestein 2016: 19). To those truly interested in innovating, mistakes are hardly ever really mistakes but rather markers on a map, that indicate where not to go. Quite obviously, such markers are just as important as those that can point in the right direction (Farson and Keyes 2002: 33). Hence the really imaginative and contributory work that will amount to groundbreaking innovation that will change the lives of people to the better, or perhaps even society as a whole, can never be easily appraised in terms of success or failure, at least not on short term. What looks insignificant or even wasteful with a short time frame, can turn out to be momentous in longer perspective. This is true in science, in technological development, and on free markets where corrections of errors—consumers discarding bad products and services, and producers withdrawing them and returning later with a better solution—hinges upon failures and mistakes (Farson and Keyes 2002: 38). Let us repeat the thought experiment of chapter 1: Was anyone capable of gauging the societal impact of the transistor at the time of its invention in the 1940s? Of course not. Even decades later, by any measures, this impact was marginal in comparison with what was to come, with the microchip and the industrial revolution it brought. Does anyone today doubt the impact of the invention of the transistor? Hardly. Backed up by this example and many others like it, Amara's law—that the impact of technology tends to be underestimated in the long run (Searls 2012: 7)—should give us reason to be cautious with our judgments on short term.

But also on short term, unpredictability is an important factor. *Serendipity*, the impact of unplanned events in any planned process, is an intuitive concept and intriguing phenomenon, but also an analytical concept. Sociologically, serendipity is viewed as a mechanism by which human individual cognition interacts with its social environment to produce the unexpected. Importantly, as scholars of serendipity Robert Merton and Ellinor Barber concluded, "the unexpected occurs twice over in the serendipity pattern", when "an unanticipated observation yields an

unanticipated kind of new knowledge" (Merton and Barber 2004: 236). Nassim Nicholas Taleb has phrased it somewhat more radically, claiming that "almost no discovery, no technologies of note, came to design and planning", but from the unexpected. His conclusion is instructive. Innovators and entrepreneurs should "rely less on top-down planning and focus on maximum tinkering and recognizing opportunities when they present themselves" (Taleb 2007: xxv).

Appreciating that uncertainty, serendipity, and evolutionary patterns of development (including a predominant reliance on trial and error) are integral parts of innovation is the first fundamental step in understanding what innovation is and how it works (Basalla 1988; Arthur 2009; Harford 2011; Ridley 2015; Ridley 2020: 240ff). And such an understanding is of course the first step in any reasonably hopeful effort of understanding how innovation can be promoted in our society. To the dismay of most politicians, bureaucrats and business leaders, who rightly recognize the crucial importance of innovation and its transformative capacity for our society and therefore wants to be able to claim to have (had) a part in successful innovation, this also means that innovation is impossible to plan. This is perhaps even more so now, in the current globalized and digital economy, where constant recombination and trial and error makes successes and failures succeed each other at fast speed and considerable overlaps (Arthur 2009: 209–210). Meanwhile, entrepreneurship research has provided us with vast amounts of evidence to refute any claims that entrepreneurship follows a given logic, that entrepreneurs have specific personality traits, or that certain decisions or actions give certain outcomes in an entrepreneurial process (Shane 2008; Brattström 2022).

The x-factor, the unknown unknown, is a necessity for anything to become real innovation with real outcomes of real significance. And such an x-factor cannot be achieved in the type of conveyor belt operations that are made up of series of what Herbert Simon called *programmed decisions*, that is, repetitive and well-defined decision-making with clear procedures. *Non-programmed decisions*, in contrast, are decisions whose procedures are unknown and for which there are no predefined criteria for evaluating success (Simon 1960: 5–7). Many problems are simply unknown, and most aspects of known problems are unknown, which means that they lack both simple or optimal solutions (Arthur 2009: 209). Innovation is inherently unpredictable, and must be. Any attempt to fully control and contain it in predefined procedures, and to subject it to simplified and shortsighted assessment of success or failure, is counterproductive.

Meanwhile, it is crucial to acknowledge the social dimension of innovation. We touched upon it above: The lone genius is a myth. We are all, in some way, standing on the shoulders of giants and greatly indebted to our collaborators and competitors for their contributions to any achievement we credit ourselves for. Everything happens in a context, and creative work is especially contingent upon social arrangements and social exchanges ranging from the highly formalized (e.g. a contract on some physical premises where the work takes place) to the highly informal (e.g. the advice and support of trusted friends or colleagues). Also on the business side, any effort requires interaction with a whole range of actors—creditors, workers, suppliers, customers, authorities, and so on (Mokyr 2016: 16). Thus while innovation is often times rebellious, it is also about proceeding in small steps and with the help of others. Very successful and famous artists have witnessed about the crucial importance of the "critical friend" who you know will support you but also will tell it like it is (Tharp 2003, 2009), revealing the faults of one's own thinking and the "latent errors" that are always built-in. If revealed at late stages, when tons of time, money and prestige have been invested, these errors can be catastrophic (Sloman and Fernbach 2017). With critical friends, and with the proper institutional arrangements that allow, encourage, and ensure critique, we can achieve truly "safe spaces to experiment" (Harford 2011: 280).

The most conspicuous flaw of the obsessive and superficial understanding of innovation in current society is the habit of presenting or thinking about innovation as something simple, predictable, and plannable. Innovation is nothing like that. Innovation is a complex, cumulative, and distributed process both in time and space, and most importantly, it is heterogeneous in terms of skill, knowledge, opportunity, and timeliness. Hardly ever is any substantial innovation, that in any way changes the lives of people to the better, undertaken by a sole individual or a single organization, no matter how much money and effort they invest. Innovation almost always happens in unpredictable chains of events, where someone makes an initial discovery or experiment, or tries a novel idea, whereas someone else develops the idea or refines the result, a third commercializes or puts to initial use some early version, a fourth improves the product or service or policy or plan to make it more efficient or useful or enjoyable. And so on. Along the way, customers or clients are involved with their demands and expectations, that spur improvements, and yet other actors and organizations provide the financial and material preconditions. Not to mention knowledge, be it specialized scientific training, engineering skills,

market awareness, planning and leadership skills. Knowledge is always acquired from somewhere—a giant pool where new interconnections are as unpredictable as they are foreseeable.

Failure to take into account the wider context is tantamount to conveying a false image of innovation and its role in society. Rest assured that this wider context always involves the full complexity and unpredictability of social life.

The Alternative

Make no mistake: Innovation is crucially important in our society. If nothing else, overwhelming evidence can be found in a quick glance at history as we know it, and a quick comparison with present times. Although there is also atrocious suffering and shocking inequality in the world today, humanity is immensely better off than only a few decades ago, let alone one or a couple of centuries. If any key factor for this success is to be identified concisely, it will have to be technological and social innovation. Moreover, there is a lot to suggest that also the current challenges of humanity and modern society, such as climate change, sustainability in a broader perspective, and conflict of various types, can be solved only by the collected efforts of human creativity applied in socially structured and institutionalized processes, in other words, innovation. When the nature of the problems ahead are not known—and perhaps especially then—innovation is in all likelihood the answer. Therefore, there is absolutely nothing wrong in general or in principle with the belief that innovation is a kind of cure-all for society, but there are undoubtedly negative consequences of this belief or how it acts out in practice. Innovation has been emptied of its content, turned into a buzzword and cliché. This book has tried to clarify that this is a deep predicament, why it is so harmful, and what its likely causes are.

There are a number of flaws with what is usually called the third generation of innovation policy (Chap. 2), a policy doctrine based on a systemic view on innovation, the thesis of market failure, and the power of positive externalities. As discussed in Chap. 5, market failures are hypothetical and therefore empirically very tricky to study. They may exist, and it is highly likely that they exist, but it is hard (to say the least) to measure or approximate their size and significance. This creates a very dire challenge for any policymaker or bureaucrat. Their task becomes to try to solve a problem without knowing how big it is, where it is, and what its character is, having only a very limited set of tools at their disposal. More

profoundly problematic is, however, that the systems approach to innovation is paradoxical as a basis for government intervention since complex systems by nature are ungovernable. Complex systems, of the sort Freeman (1987) and Lundvall (1992) picture that innovation occurs in—a very reasonable assertion—are heterogeneous and functionally differentiated and specialized far beyond what simplified models ever can manage to convey. It is therefore no surprise that innovation policy of the recent two to three decades has been based rather on a model of thought than an empirically verifiable understanding of the demands, challenges, and opportunities of innovation in the globalized and digital economy. As repeatedly discussed throughout this book, with proper reference to Hayek (1945), these demands, challenges, and opportunities are multifarious and complex down to the level of individual variation, and can therefore hardly be identified—let alone solved!—by any centrally placed actor in charge of making judgments and decisions. In this sense, the unrivaled power of the market economy is its constructive use of trial and error to constantly renew, optimize, and respond to needs as they emerge in likely and unlikely places and situations. Note that this assertion, though it appears to echo the market fundamentalism of neoliberal discourse, is really a humanist plea to let ideas and creativity flourish, and to let the pluralism it adds up to be the path of societal progress.

The same goes for incentives. If the interests of every individual actor were completely coherent with the overall interests of society—should the latter be even remotely possible to fully define—then perhaps innovation systems could be governed and steered to particular results. But as we know, individuals have diverging interests and their individual desires may also differ greatly with what society needs overall. The only known remedy to this dilemma is to construct stable and powerful institutions that encourage and facilitate innovation and entrepreneurship. This includes functioning markets, carefully balanced property rights protection, stable monetary policy, and legislation that favors competition and entrepreneurship, including the creative destruction that is harmful for special interests and damaging in the short run, but advantageous on overall level and on long term, in ways that can hardly ever be overlooked (Wennberg and Sandström 2022: 11). But the institution-building for the promotion of innovation—real innovation—does not restrict itself to predictable and stable conditions for entrepreneurship and business formation that are relatively *laissez-faire* and carry a neoliberal scent—indeed, such a free market utopia is perhaps not part of the solution at all—but is about a broad collection of institutional arrangements that encourage and enable

creativity and trial-and-error efforts, including a strong education system, a healthy R&D system with protected academic freedom, balanced IP laws, and so on.

We should try new things, and encourage trying new things, but do so with the full knowledge and appreciation of the fundamental fact that some or even most new things will fail, and therefore also expect some to fail. In order for this to work without demoralizing innovators, we need to make failure survivable. This is accomplished by creating safe spaces for failure, and by encouraging moving forward in small steps and putting new ideas to a test (in safe spaces) at an early stage of their development, before too much has been invested in them and before too many alternatives have been dismissed by the sole mind, who is notoriously bad at recognizing the faults of her own ideas. The safe spaces for failure must include both the critical friend and an atmosphere of openness and generosity, so that failure can be recognized and pointed out. This includes going behind empty rhetoric, catchphrases, buzzwords, and innovationism. Empty talk and window-dressing might be an advisable strategy for organizations and actors in specific situations, as noted in the introduction to this book, but it is devastating for society as a whole, since it prevents many of the processes that promote and enable real innovation. Besides encouraging creativity, innovators must also be made aware when they have failed, otherwise they will never learn. Likewise, politicians and bureaucrats (and academic scholars!) must be scrutinized and their misguided efforts exposed for what they are, namely empty, misdirected, and wasteful. Ideas themselves must also be properly examined for their faults, because chances are pretty good that they are not outright failures, if scrutinized by critical friends interested in both spotting faults and highlighting merits of ideas. This way, everyone wins, especially in the long run.

What we need, in essence, is a better understanding of what innovation is, what it is not, and how it relates to the causalities and dynamisms of society, economy, individual and collective pursuits, how and if they should be stimulated, and why. We also need open debate and a critique that serves its purposes—to correct errors and call bluffs when emptiness and shallowness abounds, to serve a greater purpose. Social science can give us much of that. This book has made one contribution in such a vein.

While it is true that innovation is the source of all economic growth, the policy implication of this basic scholarly tenet is backward today: Governments act as if economic growth is the ultimate purpose of innovation, but fail to acknowledge how innovation really works and what it

needs in terms of stimulation. This means that empty innovation fundamentally rests upon two misunderstandings on the level of policymakers and public administration. The first is that economic growth is desirable in and of itself, and thus that the purpose of innovation is to create economic growth. The second is that innovation as such can be planned and created and that the means to do this are known and available to policymakers and bureaucrats. As this book has shown, these two central policy-level misunderstandings have a broader resonance in society, and reciprocate with other historical developments including the emergence of the me generation and the growing role of immediate gratification in our culture, which seem to have been fomented by the digital revolution and the spread of social media in its wake. Many complex challenges face societies who want to get rid of empty innovation and reinstate real innovation in its place.

Finally, another note of caution. This book has developed a very critical view of innovation and entrepreneurship. There must be no confusion around the following: Real innovation, and individual innovators and entrepreneurs, are not the target of this critique. It is the emptiness of the currently very well-spread ideas about innovation and entrepreneurship, and the discourse that surrounds them, that must be recognized and battled. Real innovation is something genuinely good and necessary for our society. To the real innovators and entrepreneurs out there, I have therefore only this to say: Keep up the good work. We depend on you.

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Index[1]

[1] Note: Page numbers followed by 'n' refer to notes.

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