

Connectedness in times of ecological overshoot

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Valorization addendum

Introduction

The aim of such a PhD thesis is to ask relevant questions about important problems and then find, develop and use the right tools and methods to find answers, build knowledge and gain insights. This is inherently a very philosophical endeavor since a PhD thesis explores ontological and epistemological questions about Reality and Truth. What is it? How can we know, experience and explain this Reality? The assumption or belief that Reality is knowable, whether in a positivist or constructivist manner is the fundamental premise of science. Of course, science and research in practice deal with more “applied” problems and questions about the physical-natural and/or social-cultural world. Yet, it is placed within this greater philosophical discourse which makes science intrinsically valuable.

According to Wikipedia , science is the systematic enterprise that builds and organizes knowledge in the form of testable explanations and predictions about the universe. So by doing science we connect and become a part of a scientific community that is bigger than our Selves, the first is the scientific community, which in itself is part of society and beyond this, we become an integral part of the universe. If you manage to overcome the dualistic way of thinking, which divides the world into subjects and objects, you come to the conclusion that we are the universe experiencing, knowing and understanding itself. So science to me is also inherently a transcendental activity and therefore places the individual scientist and a PhD thesis in a much larger scheme of things.

Further, the researcher can be defined as a knowledge builder fighting ignorance. And yes, we believe that enlightened knowledge has the power to reduce ignorance and to make vital contributions to well-being and happiness. Specifically Sustainability Science aims to do so, by addressing some of the most difficult, universal and complex problems facing humanity and the planet. This is our calling, our purpose, our service.

Dealing with the most pressing global and universal issues humanity is facing, such as climate change, biodiversity loss, water scarcity, resource degradation, overfishing, desertification, deforestation and of course also inequality and poverty which are inherently related to environmental issues can be quite depressing at times. Those problems operate at scales much bigger than us and under governance regimes, which seem incapable to address those effectively - future prospects often seem bleak. And we know that solving our problems today will only create a new set of problems in the future that needs further problem-solving. This poses psychological and emotional

challenges which are not to be neglected, however, hardly ever openly discussed. Each of us has to find his or her ways of dealing with them.

Yet, we hold a very privileged position in this world. Not only do we have fascinating and fulfilling jobs, but we hold great intellectual capacity and knowledge. Knowledge is power; and “with great power comes great responsibility”. We are not doing this for us, we are doing this for society, especially those who are the most deprived and vulnerable, who are less fortunate and knowledgeable than us.

Hence, the need for a valorization chapter, which more specifically lays out how the knowledge of this thesis may trickle down into and benefit society. Knowledge valorization is defined as the “process of creating value from knowledge by making knowledge suitable and/or available for social (and/or economic) use and by making knowledge suitable for translation into competitive products, services, processes and new commercial activities”(as defined in the regulation governing the attainment of doctoral degrees at Maastricht University).

What is the social relevance of the research results?

This thesis was driven by curiosity to grasp what is going on with our (global) civilization. Hence, I took at broad and systemic perspective on global change, trying to understand the interrelations of drivers and pressures that are affecting this planet and humanity. I believe that that this understanding is relevant for decision making processes.

This thesis employed macro level compounded indicators of globalization and human demands that include and capture many issues at once. The advantage is that one gets a good understanding of macro trends, but a shortcoming is that the findings are not directly relevant for actual policy development, implementation and monitoring at regional and national scales. Globalization as operationalized in this thesis is a non-policy issue that spans multiple policy scales, actors and domains and is as such not really governable. I argue however, that the results are crucial and relevant for the early stages of a policy cycle: problem definition, agenda setting and issue framing. At this stage, policy makers and decision makers need to grasp the context (or landscape) in which they operate and build political will around issues. Further, causes and potential solutions are identified (Galli, 2015).

The results have shown that globalization in its recent form has not been sustainable and socially robust. We have identified the effects of globalization on human demands and further identified the statistically robust determinants of the Ecological Footprint

(and hence Ecological Overshoot). The results suggest that those are potential leverage points for intervention, and looking deeper into how those could be affected by policy seems worthwhile. However, the results on globalization, drivers and social robustness need to be consolidated, extended and integrated with other findings and should not be considered in isolation. I will now turn to discussing some first ideas for potential products and services, which could function as channels for knowledge dissemination.

Potential products and services

The results have been published in four international and peer-reviewed journal articles with one more in the making. This means that this traditional channel has already been exploited to the fullest.

Other globalization indices have a webpage, where data, reports, summaries and press releases are made available (e.g. DHL Connectedness Index and KOF index). This is one possibility that we have not made use of. Another update of the MGI would be in order, which could then be published online. One aspect that would be innovative is a “build your own index” feature, as has been available for the Human Development Index, for instance. Users and researchers could create their own Globalization index, by choosing indicators and weights themselves, which they could then compare to the original MGI. A further idea is to create a meta-webpage for globalization indices that brings together and integrates information and data from various indices. Respective pages on Wikipedia could be updated with the knowledge of this thesis, in order to make it available to the public.

The consequences of globalization have been reported in a book in 2008 (Dreher et al., 2008). Clearly, the quantitative literature has much advanced since then, and a new (and cheaper!) edition of this book would certainly be worthwhile for academics, decision makers and students. Such a book would put the results into a larger context of social, economic, political and ecological consequences. Such an effort should specifically aim to reveal the (numerical) trade-offs of globalization, as it certainly has positive and negative consequences. The review by Potrafke (2014) would be a good starting point for this.

Further, the results on the ecological consequences of globalization and the determinants of the Ecological Footprint would benefit from being further processed into realistic and practical policy recommendations. Here I see two possibilities. First, these findings could be integrated into reports by several think tanks. For instance, the findings could be relevant for the chapter on drivers of global change of the forthcoming World Environment Outlook 6 by UNEP. Another relevant report is the Living Planet

Report, which is published every other year by the World Wide Fund for nature (WWF). Second, scenario workshops on 'the future of globalization' could be organized with policy think tanks, such as the OECD, WEF or the WorldBank. A new narrative vision and practical policy agenda to advance a sustainable (and socially-robust) form of globalization could be developed and published as policy briefs or in the form of a white paper.

Regarding the work on social robustness, I envision an extension of the empirical analysis that spans more policy documents (50-100), organizations, policy domains and years. The results could be reported online, including a report with profiles for each individual document, executive summaries, policy briefs, etc. Extending the analysis to more years would allow tracking cultural trends and shifts over time. Another option could be to develop an automated web-based platform which allows users to upload documents. The platform would then do the analysis and produce a standardized report. This could also be commercialized by offering further analytic and consulting services on socially robust policy. Such a service would ideally be co-developed with a relevant policy think tank that has the relevant expertise and clients. Potential candidates could be IIASA, the New Economics Foundation, Adelphi and Heinrich Böll Foundation.

The topics and knowledge of this thesis are quite complex and as such inaccessible for non-experts. One of the greatest challenges in science communication is to simplify complex and complicated matters in such a way that they are easily understandable to the wider public. Here I see two possibilities, the first one is a popular science book, the second is a novel. For instance, with *Animal Farm*, George Orwell brought across the wicked story of the rise and fall of socialism in Russia. Cultural Theory could be used, for instance, to construct the main characters for an 'Animal Farm of the 21st century', which tells the wicked rise (and fall!?) of globalization.

In addition to the scientific results, I have learned a lot about personal development and empowerment throughout my PhD trajectory. I had my fair share of personal and professional challenges, which most PhD candidates have to go through. Further, I had to find my way to master the psychological challenge of facing the sustainability problems of our times on a daily basis. In the process, I have explored tools and methods of personal development and empowerment (coaching, mindfulness etc.) to deal with and overcome those challenges. I have kept track of my journey in the form of journals which I may develop into an autobiographic book. Further, I have already developed and implemented two Erasmus+ trainings to empower young change makers to be the change they want to see in this world and started coaching PhD candidates. This I will further pursue in the future.