



Life and Capital

Development and Change
in the 21st Century

Prof. dr B.E. Büscher

Inaugural lecture upon taking up the post of Professor of
Sociology of Development and Change at Wageningen University
on 3 December 2015



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Esteemed Rector Magnificus, dear colleagues, family, friends, ladies and gentlemen,

Introduction

Fifteen years ago, world leaders put together a set of eight goals that would end major development problems within a fifteen-year timespan (see figure 1). Approximately fifteen weeks ago they did the same thing, although now there are 17 goals (see figure 2). One could be excused for thinking that history repeats itself, and that little has changed in relation to development. But that would be wrong. One major change is the intensity in the language of the recently accepted Sustainable Development Goals. They espouse a particular urgency to undertake action in order to “shift the world on to a sustainable and resilient path”.¹ They do so in response to 21st century development problems that also have intensified dramatically over the past fifteen years. Inequality, for example, is no longer about some having more than others. It has become extreme. ‘Sustainable’ development, likewise, is no longer simply about ‘environmental degradation’. The very dynamics that sustain life on earth, we are told, are currently at stake.² There is, in short, a new intensity to development and change in the 21st Century. It is this intensification and its effects that I want to explore and discuss in the next 45 minutes.

My overarching *intervention* is that the intensifications of development and change over the last decades are dangerous and a major cause for concern, but also offer intellectual opportunities to think big.³ In this inaugural address I want to provide a big picture of how development and change have changed over time, where they stand now and why we need to study them. And when I say ‘big picture’ I mean it. I will therefore sound an advance warning that I will paint with broad-brush strokes and leave aside many necessary nuances for discussions afterwards. I strongly believe this is needed in these interesting times that are at once extremely dangerous and profoundly hopeful. Yet for all this grand posturing, I will end the lecture by coming back home, as I believe there is something important in Wageningen University’s mission to help develop and change the dangerous into the hopeful.



figure 1



figure 2

Central in the story are the concepts of life and capital. Life, because that is what development and change ultimately cohere around. Development in its organisational, systemic sense revolves around policies, programmes, institutions and interventions geared towards changing and, hopefully, improving lives. Development as ‘progress’ entails moralising or ideological notions of how life *ought* to be lived and what types of individual and social change this requires. Development as historical unfolding, finally, informs us about how life in the aggregate has changed over time. These different conceptualisations of development immediately show that the concept is difficult and complex and has no commonly-agreed-upon meaning. Similarly, our conceptualisation and understanding of life has also changed dramatically. The meanings we attach to life are very different now from what they were centuries or decades ago, and much academic debate has recently gone into understanding the government of life and associated ‘biopolitics’ in relation to development.⁴

4 | Prof. Bram Büscher *Life and Capital: Development and Change in the 21st Century*

The second concept is that of capital. In a forthcoming volume, Jason Moore, Donna Haraway and colleagues argue that we do not live in the anthropocene, as is now commonly assumed, but rather in the capitalocene, 'the age of capital'.⁵ Capital is at the core of the social and political economic system of capitalism and the dominant driver of development and change today. Development interventions are often geared towards creating the foundations and contexts upon and within which capitalist dynamics can take hold and thrive. Development progress is habitually seen as capitalist progress, as poignantly exemplified by current Dutch aid policy.⁶ These equations have become such common sense that the open, critical study of *capitalist* development is still often seen as something 'radical'. The recent financial crisis changed this situation slightly but I agree with Murat Arsel and Anirban Dasgupta's recent assertion in their introduction to the 2015 *Development & Change* Forum issue that there is a real need to bring the analysis of "the dynamics of capitalism in its local, national and global dimensions" back into the centre of our understandings of development and change.⁷ This is a call we need to take very seriously.

In the 21st century, these two concepts increasingly co-constitute each other: life is capital and capital is life. If capital fails, life suffers. This was the main message during the financial crisis and more recently around the Greek debt crisis. Vice versa: if life is to be lived successfully, then the logic of capital must hold sway and one must devote one's life to capital. At the same time, it is clear that this constitutes an empirical and theoretical impossibility.⁸ An analysis of 'life and capital', then, provides a specific take on how to interpret and deal with some of the most pressing development problems of our time. The co-constitution of life and capital, after all, presumes endless growth and accumulation of the type that has led to the uneven yet increasingly extreme social and environmental pathologies that for me centrally inform the development *problematic* of the 21st century.⁹ We therefore have a major conundrum where most agree that these pathologies are dangerous yet few accept that the logics that got us into them cannot be the ones to get us out.

To truly understand this, we need a conceptualisation of capital as a dynamic *process*, not a static resource or a thing. Capital cannot simply be equated with "forms of wealth that individuals (or groups of individuals) can own and that can be transferred or traded through the market on a permanent basis", as Thomas Piketty has it.¹⁰ Hence, the title of this lecture plays on and shows that it is different from Piketty's popular book *Capital in the Twenty-First Century* by adding the concepts of 'life', 'development', and 'change'. How, then, do the concepts of life and capital relate and why is this relation important in understanding development and change in the 21st Century? This is the central question I aim to address in this lecture.

My departure from Piketty is not to say that his key point – that social inequality is a growing and dangerous problem and that this must be reversed – is irrelevant. To the contrary! Yet I believe that, first, it is not new – social theorists and development studies scholars have been writing about this for decades, if not longer¹¹ – and second, that contemporary inequality’s origins and what to do about it become clearer through a different conceptualisation than what Piketty offers. Moreover, and this is crucial, I want to very explicitly bring nature into the picture. Piketty hardly talks about nature but I hold that one cannot speak about development and change in the 21st century without making non-human nature intrinsic to the analysis.¹² Doing this inaugural in the ‘city of life sciences’ and in a university that aims to ‘explore the potential of nature’, I must strive to capture human *and* non-human life in all their diversity. When I therefore speak of the development *problematic*, I always refer to both the social *and* the environmental.¹³

The roadmap for what follows is straightforward. I will start by briefly discussing the state of development and development studies, and why I believe we need a big picture lecture and an updated conceptualisation of the development *problematic*. Next, I will go deeper into the main question how life and capital relate and why this matters for understanding the current, very specific intensifications of development and change that we see reflected in the SDGs. This will lead to several suggestions concerning what I believe is important to study in the sociology of development and change in the coming years. I will end with a conclusion that centralizes the second part of Wageningen University’s mission: ‘to enhance the quality of life’.

The (need for the) big picture and the ‘development *problematic*’

Students of ‘development’ seem to study anything and everything. If one looks, for example, at the recent third edition of the *Companion to Development Studies* it is clear from its 109 chapters that any contemporary or historical issue of international significance can be studied by development studies scholars.¹⁴ The question of what development is, and what development studies should focus on, therefore remains an unresolved issue.¹⁵ As a result, it is also no wonder that development studies continues to critically examine itself and, since the mid-1980s, seems to stumble in and out of ‘impasses’.¹⁶ Impasses, however, are not necessarily negative, and certainly not unproductive. As colleagues Paul Hebinck, Gerard Verschoor, Alberto Arce and others have shown, right here in Wageningen, the development studies impasse in the 1980s led to a great flurry of intellectual creativity and productivity around ‘actor-oriented’ development sociology that has been and continues to be influential in development studies and beyond.¹⁷ More recently, Murat Arsel and Anirban Dasgupta have argued that impasses are not a deep-seated existential

crisis on the part of development studies but rather an inherent part of its modus operandi.¹⁸

All this, however, still does not give us a more precise idea of what development is, what development studies does and why this is important. In this lecture I will not give a definitive answer but attempt to provide some general directions, which derive from my understanding of the development *problematic* in the 21st century. This *problematic*, as I indicated at the start of the lecture, is no longer ‘just’ about continuing poverty, inequality or environmental degradation. Influential sociologists like Zygmunt Bauman, Saskia Sassen, Andrew Sayer and others have recently been at pains to find new concepts to more accurately describe the actual empirical realities of our contemporary capitalist development model.¹⁹

Income inequality, as I mentioned already, has become extreme. According to Credit Suisse’s ‘Global Wealth Report 2015’, the (in)famous ‘1%’ is now so wealthy that they own more than the bottom half of the world’s population combined.²⁰ And since they cannot possibly spend so much money, they often reinvest wealth to let it grow further.²¹ On the other side of the coin, those that lose out are not just ‘poor’ income-wise; they are increasingly excluded in more austere terms. Saskia Sassen, for instance, coins the term ‘expulsion’ to describe the increasing “brutality of our contemporary economy”.²² Zygmunt Bauman and Tania Li talk about the many ‘wasted lives’ or ‘surplus populations’ generated by capitalist development.²³ These wasted or surplus lives are no longer just the poor in the ‘global south’, but the excluded, expelled and marginalized globally, including, for example, increasing numbers of climate refugees,²⁴ millions of low-paid workers and the vast number of people incarcerated in what Loïc Wacquant calls ‘prisons of poverty’.²⁵

A similar story holds for the term ‘environmental degradation’. Since we started talking about *sustainable development* in the 1980s, we have seen environmental demolition and pollution on immense scales. Many authors are currently analysing the post-financial crisis intensification of the search for global mineral, land, fossil and other resources to satisfy ever-growing consumption needs, leading to extreme forms of extraction, land grabs, forest conversion, resource depletion and the like.²⁶ This search is also implicated in the most dangerous environmental issue of our time, climate change, about which Naomi Klein stated that it ‘changes everything’.²⁷ She, the Intergovernmental Panel on Climate Change and countless others, including many colleagues here in Wageningen, have shown that since the world put climate change on the agenda in the 1990s, emissions have continued to soar and natural disasters have proliferated and been ‘supercharged’²⁸. Climate change, moreover, is one of the four out of nine ‘planetary boundaries’ that have

now been crossed, according to a Stockholm Resilience Centre-led team of authors earlier this year.²⁹

These unsustainable and increasingly extreme social and ecological development problems are, in turn, conjoined, complicated, aggravated and/or alleviated by many other contexts and issues. I will mention only two that play an important part in my subsequent arguments and that are central to my own research or of members of the SDC group. The first is the context of ICT and ‘big data’. These open up new and potentially interesting ways to understand and alleviate the aforementioned problems, though they can equally, if not more likely, aggravate them, as I concluded from my recent Nature 2.0 Veni project.³⁰ The second is the context of new and intensified forms of surveillance, securitization, conflict and violence.³¹ As Gemma van der Haar, Bram Jansen and Jeroen Warner show in their research, conflicts and disasters change and highly complicate development settings, but often in less-than-straightforward ways.³² In my own recent research, I have also seen conservation and development promises take a dramatic turn towards what my South African colleague Maano Ramutsindela and I are now referring to as ‘green violence’: violence employed to protect nature. The peace parks I studied for my PhD research have recently turned into ‘war parks’, with stark yet underinvestigated impacts on their development promises.³³ This is one of the things that Stasja Koot, three PhDs and I will investigate in my recently acquired Vidi project on ‘crisis conservation’.

These development problems are real and urgent. Yet to some degree, this is exactly what Wageningen development sociology rallied against. Norman Long disliked “determinist, linear and externalist views of social change” and distrusted the theories that brought them forth.³⁴ A major concern, of course, is that these blunt statements obscure how actors at the grassroots and other levels experience, resist and understand problems. As Monique Nuijten argues based on research in Brazil and Spain, local actors also find strength and creativity from development interventions or financial crises, which feeds into and become part of complex local politics with no pre-determined outcomes.³⁵ Local actors, as Pieter de Vries also shows, are no unitary categories subjected unproblematically to development but themselves display contradictory desires and performances.³⁶ Finally, as Han van Dijk and Dik Roth would no doubt point out, the way actors employ, interpret and use legal and normative systems are likewise crucial in understanding everyday development practices.³⁷ These complex, nuanced and constantly changing forms of *political agency* are equally part of the development *problematic*.

The development *problematic* therefore needs to be rephrased to do justice to these empirical realities.³⁸ I suggest that the 21st century development *problematic* revolves

around the intensification of inequality, marginalization and degradation and that this trend is rooted in a very specific form of *intensification* that I will explain later in the lecture, one that I call *processual intensification*. Given the high stakes involved, I argue that the study of this 21st century development *problematic* needs to balance radical, big picture thinking with empirical, local and non-deterministic nuance. Phrased differently, the focus should be on how development problems have changed to produce more extreme effects, outcomes or potentialities, while remaining open to how these are differentially experienced or constituted. I call this approach to the study of the sociology of development and change in the 21st century ‘daring rootedness’.

Daring rootedness combines empirical, theoretical and conceptual nuance with a daring to be radical in ones conclusions and the political consequences that follow from these. Importantly, radical here is meant literally, namely as going to the roots. What this approach means in practice is summed up by five key statements: it views development as a *global* problematic, not just about the ‘global south’ or ‘developing societies’; as a *social* problematic, not just about the (individual) poor but about the relations between rich and poor and hence as much about *us* as about *them*; as a *knowledge* problematic, not about ‘objective’ realities but about how these are constructed, produced, understood and theorized across all levels across time and space, and within a framework whereby actor and structure are co-constituted on every level; and as an *affective* problematic, not outside of political economy but also not reducible to it. Finally and most importantly, daring rootedness views development as a *political* problematic, paying explicit attention to power in, of and through development and change.³⁹ This approach, I believe, allows us to see why the intensification of the current development *problematic* is dangerous but at the same time opens spaces of hope, alternatives and potential. Let us then look more closely at power and politics in development and change through the central axis that currently unites them, that between life and capital.

Life and Capital: the biopolitics of development

How do the concepts of life and capital relate and why is this relation important in understanding development and change in the 21st Century? This was the question I posed in the beginning. Of course, in the time allotted to me, I cannot do this question justice. I shall therefore restrict myself to exploring several key arguments and questions that I wish to develop or investigate in greater detail in the coming years. Importantly, these arguments and questions are based on one main assumption, namely that the changing nature of dominant forms of global power and politics necessitate concomitant changes in the dominant expression and

understanding of development.⁴⁰ Development, I argue in other words, *is inherently implicated in our understanding of historical change more broadly* and plays a contradictory role, namely as both reflective of *and* responding to historical change.⁴¹

This assumption foregrounds the axis of life and capital, simply because it is central to how the nature of global power and politics has been and is changing.⁴² This is so, first, historically. In the historical development of capitalism between the 17th to 20th centuries, the necessities of capital demanded major changes in how life was understood, administered and governed. French philosopher Michel Foucault coined the term ‘biopolitics’ – the politics of life – to understand precisely this question.⁴³ One of Foucault’s main preoccupations was to show that the state became principally concerned with “exercising supervision and control over its inhabitants, wealth, and the conduct of all and each”.⁴⁴ In the process, ‘good government’ in the 18th century became ‘economic government’, and a principle aim of the state became how to merge life and emergent forms of capital so as to guarantee order and civility.⁴⁵

Biopolitics was the linking pin in the middle, particularly through its discovery of *population*.⁴⁶ Through the development of statistics or information about the needs, activities and circulations of populations within and among territories, states or state entities could regulate populations and so take care of and positively influence life in the aggregate.⁴⁷ In sum, the discovery and development of populations under emerging forms of capitalism needed specific forms of politics and power in order to flourish, and it is these that Foucault calls biopolitics and biopower.⁴⁸ Importantly, the concerns that biopolitics fashioned around health, hygiene, birth-rates, life expectancy, education and others that were vital for ‘optimizing populations’ – including the (social, cultural, political, economic and environmental) contexts in which these function – closely resemble what much of development in its organisational, systemic sense was and to some degree still is about.⁴⁹

Yet, and this is something that Foucault was deeply aware of, this historical process of a ‘positive’ governance of life was at the same time extremely violent.⁵⁰ Biopolitics in the service of a growing capitalist political economy could be deadly on a massive scale. But whereas Foucault was reluctant to take a normative stance on this, Karl Marx, obviously, had no such hesitations.⁵¹ In *Capital*, volume one, Marx wrote that the history of capitalism “is written in the annals of mankind in letters of blood and fire”.⁵² The transition from feudalism to modernity that biopolitics helped give birth to was referred to by Marx as ‘primitive accumulation’, and much development literature shows that this violent unfolding continues up to today through dynamics of ‘uneven geographical development’ and ‘accumulation by dispossession’.⁵³

These, as I warned in the beginning, are blunt brush strokes. Much more should be said about these historical developments. But why are they important in my story? Because, and here I come back to my central assumption, development is inherently implicated in our understanding of historical change. Biopolitics allows us to see this on two levels, on the empirical and on the epistemological level. For the empirical level I turn to Mark Duffield, who shows how biopolitics led to distinctions between developed and underdeveloped, both within and between nations.⁵⁴ For the epistemological level, I turn to Hannah Arendt who argued that biopolitical processes provided the ground for a new common-sense understanding of “history as a *development*, as a self-propelled process”.⁵⁵ In her view, capitalist history itself came to be seen *as development*, as process, and hence to embody ideas about ‘progress’ and ‘historical unfolding’.

These two levels are crucially held together by the fact that biopolitics rendered life information. When life as *population* became information through statistics, demography, epidemiology and the like, life in the aggregate became manageable, manipulable, subject to government, and so forth. It became clear – in numbers – who is more or less developed; it became clear – in numbers over time – whether one is ‘progressing’ or not.⁵⁶ This was absolutely crucial for the historical rise of capitalism and – vice versa – how capitalism started shaping linear, teleological ideas about development.⁵⁷ Thus the historical basis for the co-constitution of life and capital was laid, something that, as I will show later, is now going through another major intensification as life-as-information is affected by the rise of ‘big data’.⁵⁸ For now it is important that development studies has had a lot to say about the biopolitical rendering of life-as-information and to the linear, teleological ideas of development to which this led: it became the major rallying point of the so-called ‘post-development’ turn in development studies.⁵⁹ This critique was and is still important, but the political power structures and concomitant ideas about development and change against which it railed are changing rapidly. Let me now proceed to offer some thoughts on the distinctiveness of development and change in the 21st Century.

Development and change in the 21st century

Much current development studies literature shows how intensified biopolitics based on the co-constitution of life and capital is central to contemporary development. Connor Cavanagh, for example, identifies three ‘primary axes’ across which biopolitics in development operates: “first, between differently ‘racialized’ populations of humans; second, between asymmetrically valued populations of humans and nonhumans; and, third, between humans, our vital support systems, and various types of emergent biosecurity threats”.⁶⁰ Many others have contributed

to this debate, including our new SDC colleague Robert Fletcher. His conceptual framework around 'neoliberal environmentality' has enabled us to see how governmental systems produce incentive mechanisms for the further integration of life and capital.⁶¹

Building on this, I want to suggest a research agenda that captures and takes serious the contemporary development *problematic* and the forms of power and politics around life and capital it emanates from. What I believe distinguishes development and change in the 21st century from that of much of the 20th century is that it is rooted in *processual intensification* rather than *systemic intensification*.⁶² This might sound like a trivial difference but I argue that the consequences are not trivial at all and urgently need to be investigated and confronted. Whereas much of 20th century development was focused on building and encouraging more-or-less stable systems to promote linear, teleological change towards a more advanced capitalist state,⁶³ 21st century development is focused on encouraging and capturing rather-less-than-stable processes focused on promoting any type of change (linear or non-linear) that can deliver value.⁶⁴ The more popular term for this type of change is one that we all know, namely 'innovation'. The more correct term for the 'value' that I speak about is of course 'capital', which in contrast to Piketty I defined earlier as 'value in process'.

To fully grasp the importance of this shift, it is necessary to briefly outline the difference between system and process.⁶⁵ The objective of a system is to guide, manage or direct processes in such a way to allow for provisional stability. Power in a system is self-referential, focused on self-reproduction and limiting variation such that change can be imagined as linear and teleological. This, of course, does not mean that systems and the way they *actually* change are ever linear and teleological. Systems therefore need to plan for potential disturbances by focusing on *adaptation* and *resilience*. These two terms are, of course, very familiar in contemporary development and other discourses and to me signal a desire to hold on to patterns that we know or sense are changing rapidly due to the shift from systemic to processual intensifications of power and politics. Process, in contrast to system, is not self-referential but focused on difference, and hence linearity is no longer necessary or even desirable. A process, unlike a system, is inherently fluctuating and unstable, and power in process is focused on understanding and responding to tendencies. This indicates, amongst others, why trends, trending and trend-watchers have become so important. If we want our work, solutions or ideas to become 'valuable' these days, we need to make sure we are on top of the latest trends and be able to jump from process to process without expecting much (provisional) stability.⁶⁶ This, obviously, is not just related to development anymore; it is central to broader neoliberal ideas about life in general.

System and process, importantly, are not opposites. System is “a mode of expression of process” and this means that many biopolitical elements of life and capital that defined 20th century development and change continue today. The difference is therefore a matter of emphasis, but one with potentially major consequences. One of these is that trends and tendencies become more extreme, no longer constrained by the requirements of systemic stability. To the contrary: unleashing these more extreme tendencies is precisely what is needed for the continued valorisation of capital, which after all is *value in process*. Processual intensification, in short, allows capital to truly become its own and unleash new, extreme pressures on and through life in order to valorise itself. This is clearly visible in the 21st century development *problematic* and why I argued that these are rooted in processual intensification, and why they are dangerous. The big question on the table then is what the implications are of this shift in the emphasis of change, and what alternative ideas about development and change might be developed to counter them, to turn the dangerous into the hopeful.

I will provisionally answer this question by positing a research and action agenda for the sociology of development and change for the years to come. This agenda can take many forms and builds on and extends ongoing work in SDC and WASS. Several themes that especially reflect the dangerous processual intensifications of the 21st century development *problematic*, however, should in my view be prioritized. **A first** is the intensification of forms of surveillance, conflict and violence, in conjunction with intensified crises and disasters. These exceptional circumstances are becoming less exceptional and therefore all the more threatening to more people. The current SDC research theme of *crisis, reordering and resilience* already centralises these issues and I aim to contribute to and broaden this theme, for example by investigating how forms of ‘green’ surveillance, securitization and violence are increasingly intertwined with development and conservation, and how we can move beyond resilience and adaption to understanding forms of political agency that confront these intensifications. These questions are crucial in general and also on the agenda of a major international conference that SDC will be organising with five other chair groups across two Wageningen departments in July 2016.⁶⁷

A second, seemingly abstract but actually very concrete issue is the intensification of space and time in development. Regarding space, especially well known are Neill Smith and David Harvey’s attempts to build a theory of ‘uneven geographical development’ to understand, in Harvey’s words, “the extreme volatility in contemporary political economic fortunes across and between spaces of the world economy”.⁶⁸ SDC colleagues Elisabet Rasch and Michiel Köhne, among others, take up this theme in their research on Fracking in the Netherlands and extraction in the

Philippines and Indonesia.⁶⁹ Moreover, the Geo, RSO and SDC groups have recently decided to further integrate and encourage their research under this theme by setting up a Centre for Space, Place and Society. Less well known or investigated is the question of temporality in development, and yet this is to some extent where *processual intensifications* become most acute and dangerous. The processual intensification of time aims to predict, based on ‘big data’ what might happen in the future, and take preemptive action in the present to diminish unknown *future* threats to life. This temporal dimension takes biopower to the next level, and it is what theorist Brian Massumi calls *ontopower*.⁷⁰ A key question for future research will be whether and how biopolitics and biopower are giving way to ontopolitics and ontopower in development and with what effects.

My **third theme** follows from this and brings us one step closer to home. To focus on temporality includes focusing on potentiality, including ‘exploring the potential of nature’, which is of course the mission of our university. I argue that this mission harbours a deeper significance than first meets the eye and that ‘potential’ needs to be defined carefully. In relation to the potential of both human and non-human nature, we find many, in my view, deeply problematic and troubling tendencies, especially the subjecting of these natures to the processual intensifications I have talked about.⁷¹ Hence, the calculative, quantitative biopolitics of exploring and exploiting the potential of natures so deeply engrained in the life sciences and contemporary policy are enabling the deeper integration of life and capital on all manner of scales, from agricultural systems to the molecular level.⁷² This integration is given different labels such as ‘natural capital’, ‘environmental services’, or the ‘bioeconomy’ and these are not innocent: they further open up nature to capital and naturalize capital as the basis of life.⁷³ Much of my and colleagues’ earlier empirical and theoretical work shows that this commodification of nature does not alleviate but indeed contributes to the development *problematic* outlined earlier.⁷⁴

The neoliberalisation, commodification and marketization of the potential of nature, then, clearly needs to be investigated further and this will remain an important part of my and colleagues’ research agendas. Yet at the same time it is important to open up this potential to look for alternatives, where life and development and not reduced to capital. This is equally important research, where again the focus on *political agency* is crucial. SDC colleagues have long been engaging this question of potential in many different agrarian and other natures on empirical, epistemological and ontological levels and this is a tradition we will continue.

Fourth and finally, is the question of the intensification of information and ‘big data’ that affects all the previous issues. This trend obviously has major consequences for

development and change, much of which are ill understood.⁷⁵ While some are positive about the potential in big data and the co-creative web 2.0 to connect people and find solutions to complex and global development problems, others point to the more dangerous sides of the dramatic intensification of data and information. One of these is the danger of 'post-truth politics' whereby truth, including scientific truth, is easily rendered 'helpless' in the 'information blender' of too many contradictory voices and the political interests they serve. A major question, then, is how to acknowledge and incorporate the fact that science is political yet at the same time not get lost in negative post-truth-politics to convince audiences and publics that certain scientific results pertaining to the urgent development *problematics* outlined above are more truthful than others.

Let me conclude.

Conclusion: development, change and the 'quality of life'

These 'processual intensifications' represent stark conundrums, challenges and questions. So where, besides research and teaching initiatives, might we all look for inspiration for ways forward and for potentially alternative modes of development and change? Here, also, we must think big, yet at the same time, we do not have to look far. I argue that the second part of the mission of our university - *enhancing the quality of life* - opens up radical space to think big, to think differently about development and change as we move deeper into the 21st century. I emphasize *quality* on purpose. After all, it is no coincidence that Wageningen University's mission is not 'to explore the potential of nature to improve the quantity of life'. Yet this is what we often end up doing in practice. The biopolitics of much - though certainly not all! - contemporary science that aims to contribute to processes of development and change, is often focused on rendering life valuable in quantitative terms in order to stimulate marketization, commercialisation and privatisation through patents, copyrights or otherwise. This, of course, contributes to life as capital.⁷⁶ As I have shown, the question that we need to consider is not whether this co-constitution of life and capital can solve but whether they are actually at the root of the increasingly extreme development problems the world faces.

The next question therefore is where to look for inspiration to develop scientific and political imagination focused on conceptualising, articulating and materializing alternative forms of development and change that can tackle the roots of these problems. This, then, is why daring rootedness is needed, which connotes to 'radical' as in getting to the roots of things. Further inspired by the call of our University Board at the opening of the academic year to practice 'disruptive thinking', it means

that we should really step ‘out of the box’ and start imagining life outside of capital. This may sound ‘unrealistic’ to some, and this is exactly the point. ‘Realism’ means staying on the path that we are on, and we all agree that this is not an option. Neil Smith, the great theorist of ‘uneven geographical development’ said in his last speech in his life that ‘the future is radically open’.⁷⁷ This is true, and we need to seize the potential that it brings. Development and change in the 21st century need to radically open the future, as an abundant instead of a scarce future,⁷⁸ as a hopeful instead of a dangerous, apocalyptic future⁷⁹ and, most of all, focused radically on ‘enhancing the quality of life’.

In the field of development studies and beyond there is no shortage of concrete proposals on how to go about this, so I will not repeat these here.⁸⁰ Moreover, we need to – once and for all – get away from the idea that ‘development’ is about the (rich, white) global north ‘helping’, ‘training’ or ‘capacitating’ (coloured or black, poor) people in the global South; about ‘us’ helping ‘them’.⁸¹ ‘Development’ has always been and is especially now about us, about ourselves here in the global north and we need to start looking at the massive negative social and environmental contradictions our capitalist development model has brought. I will therefore stay close to home and merely suggest one proposal that I see as a small but important starting point for our university of life sciences to start to radically live up to its own mission.

This proposal is simple and builds on the further cross-fertilization of the natural and the social sciences, something Wageningen University is already rightly proud of. But the way this cross-fertilization works needs some rethinking. Too often are the social sciences still seen as an extension of the natural sciences. But true integration works both ways. I therefore want to suggest that as the social sciences continue to try to get to grips with the natural sciences, the latter also rediscover their social and philosophical roots. As famous historians of science Steven Shapin and Simon Schaffer have shown in their magisterial book *Leviathan and the Air-pump*, many seventeenth century scientists were both physicists and philosophers. Indeed, it could hardly be any other way since the problem of order (‘governance’) and the problem of knowledge (‘science’) were (and are!) one and the same.⁸² If one takes the words of one of the greatest life scientists of all time, Albert Einstein, seriously:

“a knowledge of the historic and philosophical background gives that kind of independence from prejudices of his generation from which most scientists are suffering. This independence created by philosophical insight is—in my opinion—the mark of distinction between a mere artisan or specialist and a real seeker after truth”⁸³

I do not know whether following in Einstein's footsteps is a radical proposition. I do know that if we do, it would radically change how our life sciences university contributes to development and change and views 'the quality of life'.

Word of thanks

I want to end this inaugural address by thanking those who have, often radically, enhanced the quality of my life and – hopefully – the quality of my work.

First, I want to thank Wageningen University, and especially the former Rector, Prof. Martin Kropff and the current Rector, Prof. Arthur Mol, for their trust in me. Next, I want to thank my colleagues at the SDC group and our SADE section. Monique Nuijten was the first to prod me to apply for this position and I am happy that I did. From the start, I have felt very welcome in the group and the section, and want to thank all colleagues and my co-chair Han Wiskerke, for your support, trust and collegiality. Everyday you all show me what dedication to 'radical quality of life' means and it is this spirit that gives me much confidence that our group and section has a bright, interesting and intellectually stimulating future to look forward to.

Wageningen University is a big place. I hadn't realized exactly how big and hence how many people I would meet and get to know. It has been a true pleasure getting to know so many good scholars from different chair groups, so many dedicated support staff across all levels of the university, and most especially, so many wonderful, bright and inquisitive students. Special thanks to Alfons Oude Lansink, Inge Grimm, our previous director Laan van Staalduijnen and our current director Jack van der Vorst, for your astute support during some challenging and interesting moments. I look forward to working on the 'radical quality of life' with you all.

I defended my PhD a little less than seven years ago and life and work have been an exciting roller coaster since then. Ton Dietz, Henk Overbeek and Bernhard Venema, my promotors, played a crucial part to make sure I was ready for it. Their mentorship, intellectual guidance and advice were, are, and continue to be very important to me. Before joining Wageningen University, I was fortunate to be part of the Institute of Social Studies in The Hague, which has been crucial in my intellectual formation and my understanding of development and change. I would like to mention you all by name, but I hope I can be forgiven for just mentioning two: my dear friend Murat Arsel and my dear mentor, Max Spoor. It is difficult to express how happy I am that you are both here tonight.

The lives that many of us lead in the 21st century are truly global lives. So thinking about all those who contributed to the quality of my work brings me to all the far corners of the globe: from the anonymous reviewers of my articles and the colleagues I meet at conferences to those whose lives I disturb with my empirical questions and the many fine scholars and practitioners I have been fortunate to collaborate with in doing so. My PhD students are from and work in all corners of the globe and I want to thank all of you for the opportunity to learn from and work with you. I am a proud member of the 'VIVA collective'; a truly global group of colleagues and collaborators dedicated to a 'radical quality of life' that continues to inspire and amaze me every day. Special thanks here go to Prof. Dan Brockington, for setting the example. And I am proud to be part of the Journal *Conservation & Society*, managed and run from India and a global leader in how radical quality of work can be truly accessible to all.

Special thanks go to several close colleagues who read and commented on this lecture, and to Marielle Takes for your incredible support in making much of this possible. Special thanks, also, to my dear mentor Philip Quarles van Ufford: our conversations are more than special to me.

Finally, I want to come home again, even though my home is almost as global as my work. Home is where my friends and family are, here in the Netherlands, in South Africa, and many other places. It is amazing to see all your lives develop and change and I thank you all for allowing me to be part of it.

As I mentioned several times already, radical is not extreme but means going to the qualitative roots. And the roots of my home, work and life are my immediate family. To my brothers, sisters and their amazing kids: you mean the world to me. To my parents Henk and Lenny: if I have any idea of the meaning of a 'radical quality of life', it is thanks to you and all that you taught me. To Arana: what radical joy you bring to my life. To Stacey: you show me, every day, what love means. Thank you for keeping me rooted.

Ik heb gezegd.

Endnotes

- 1 See the Sustainable Development Goals resolution of the United Nations, accepted on the 18th of September 2015, pages 1-2, which espouse a decidedly more urgent tone than the Millennium Declaration that brought forth the Millennium Development Goals in 2000.
- 2 Rockström et al, 2009; Steffen et al, 2015; Turner, 2014;
- 3 This is not the same as the overarching arguments that I want to make, but since this is an inaugural address, I want to foreground the intervention I am making here, which is based on specific arguments I intend to work out further in ongoing and future writings.
- 4 See, amongst others, Duffield, 2007; Cavanagh, 2014; Death and Gabay, 2015.
- 5 Moore, 2016.
- 6 Dutch development policy has now been ‘officially’ tied to trade policy whereby the idea is that countries can fall into one of three categories: 1) ‘aid relations’ with countries who ‘cannot solve their poverty problems by themselves’; 2) ‘transition relations’ with low and middle income countries with high economic growth where ‘a combination of aid and trade can help both developing countries and the Netherlands’ and 3) ‘trade relations’ focused on trade and investment promotion that serve the Netherlands “understandable’ self-interest’. See Ministerie van Buitenlandse Zaken, 2013: 5, and the tellingly labeled ‘transition facility’ (<http://www.rvo.nl/subsidies-regelingen/transitiefaciliteit-tf>), accessed 21 October 2015. Obviously, this comes frighteningly close to Walt Whitman Rostow’s long-debunked teleological and linear ideas about ‘stages of economic growth’ although there are now three instead of five ‘stages’ of economic development. See Rostow, 1960.
- 7 Arsel and Dasgupta, 2015: 644.
- 8 Empirically, this is impossible as life shows in many ways that it can never be fully ‘subsumed’ by capital, and theoretically, this is impossible because it is based on flawed theories of rational self-interest and (neo)liberal economism, see Massumi, 2015a. Therefore I note on purpose that these two concepts ‘increasingly co-constitute each other’, as they can never co-determine each other.
- 9 Within political economy, see, amongst others: O’Connor, 1998; Kovel, 2002; Brockington et al, 2008; Foster, 2009; Arsel and Büscher, 2012; McMichael, 2012; Moore, 2015.
- 10 Piketty, 2014: 46. See also Harvey, 2010, and his comments on Piketty: <http://davidharvey.org/2014/05/afterthoughts-pikettrys-capital/>. Last viewed: 8 October 2015. See also Richard Peet’s review in *Geoforum*, volume 65, pages 301-303 where he calls Piketty’s approach ‘economics as usual’.
- 11 Frantz Fanon (1963: 69) asserted long ago that “what counts today, the question which is looming on the horizon, is the need for a redistribution of wealth. Humanity must reply to this question, or be shaken to pieces by it”.
- 12 See also McMichael, 2012, f.i page 284.
- 13 This is inspired by a long debate on overcoming nature-society dualism, and most recently by Jason Moore’s excellent attempt to build a theory of ‘world-ecology’. See Moore, 2015.

- 14 Desai and Potter, 2014.
- 15 This is not the place to give an overview of the history of development or development studies. See, for example, Leys, 1996; Rahnema and Bawtree, 1997; Kothari, 2005; Greig et al, 2007; Ekbladh, 2010; McMichael, 2012; Desai and Potter, 2014.
- 16 Booth, 1985; Schuurman, 1993; 2014.
- 17 See Hebinck and Verschoor, 2001.
- 18 Arsel and Dasgupta, 2015.
- 19 See Harvey, 2014; Sassen, 2014; Bauman, 2004; 2011; Bauman and Bordoni, 2014; Sayer, 2015. Sassen (2014:1), for example, posits the term ‘expulsions’, which according to her “takes us beyond the more familiar idea of growing inequality as a way of capturing the pathologies of today’s global capitalism”. Barder and Debrix (2011: 788) even argue that we are peering “into the ‘abyss of total violence’ that manifests itself after sovereign decisionism and biopolitical modalities of power have taken over the everyday conduct of political affairs” (p. 775).
- 20 See the report online at: <https://publications.credit-suisse.com/tasks/render/file/?fileID=F2425415-DCA7-80B8-EAD989AF9341D47E>. Accessed: 15 October 2015.
- 21 Piketty, 2014; Sayer, 2015, chapter 20.
- 22 Sassen, 2014: 7.
- 23 Bauman, 2004; Li, 2009. And the list goes on, of course, for example Mike Davis’ (2006) famous Planet of Slums or Evans and Giroux’s (2015) recent focus on how spectacular violence under contemporary capitalism produces ‘disposable futures’.
- 24 Biermann and Boas, 2010; though see the important article by Betsy Hartmann about the ‘ideological roots’ and the perverse political use of the concepts and perceived threats of ‘climate refugees’ and ‘climate conflict’.
- 25 Wacquant, 2009a; 2009b.
- 26 Klare, 2012. Klare talks about oil sands, fracking, drilling in the arctic, and so forth. His not so positive assessment is that this race will lead to “war, widespread starvation, or a massive environmental catastrophe” (p.234). See also White et al, 2012; Muradian et al, 2012; Borrás and Franco, 2013; World Watch, 2015.
- 27 Klein, 2014.
- 28 Klein, 2014: 2; IPCC, 2014.
- 29 Rockström, et al. 2009; Steffen, et al. 2015. To be clear: I believe that the authors’ proposed solutions of resilience, adaptation, accommodation, and the like, are naïve at best and further contribute to the 21st century development problematics at worst. See Read, 2013. See here also a recent paper by Graham Turner (2014: 5) who remodeled the original predictions in the famous 1972 Limits to Growth report and argues that the report’s ‘Business as Usual’ scenario actually seems much more accurate than previously perceived by critics. On this basis, the author “aims to forewarn of potential global collapse—perhaps more imminent than generally recognised—in the hope that this may spur on change, or at least to prepare readers for a worst case outcome”.

- 30 See Mol, 2008; Büscher, 2014; 2016.
- 31 Duffield, 2007. See also Agamben, 1998; 2005; Minca, 2006.
- 32 Van der Haar et al, 2013; Warner, 2013; Jansen, 2015.
- 33 Büscher and Ramutsindela, 2015.
- 34 Long, 2001: 11; see also Hebinck et al, 2001: 3.
- 35 Nuijten, 2013; in press.
- 36 De Vries, 2015.
- 37 Van Dijk, 2011; Roth, 2014 – see also Hardt and Negri, 2009, chapter 1.1.
- 38 This has long been a theme in my work, see, f.i.: Büscher, 2008; 2015.
- 39 Büscher, 2013a: xiv.
- 40 This argument also makes clear why development and change need to be analyzed conjointly.
- 41 Li, 2007; Rist, 2008; Büscher, 2015.
- 42 Here is where the argument leans very much on the work of Jeffrey Nealon, 2008, but see also work in world systems thinking, especially Arrighi, 2009 and Moore, 2015.
- 43 See Foucault, 2007: 94-95 on the birth of ‘political economy’, and Foucault, 2008, especially the lectures of 14 and 21 March 1979 (nine and ten). It is important to add, though, that his central problematic was another one. Foucault was principally interested in the more classic problem of government in liberal societies, which was supposed to provide freedom on the one hand but also intervene into society to guarantee order and civility on the other. See Dean, 2010; also Rabinow, 1984.
- 44 Foucault, 2007: 95.
- 45 See here the insightful article by Tiziana Terranova, who argues that “Foucault’s lectures in particular make it possible to think about the process by which the economic-institutional reality of capitalism (as a series of variable historical singularities, rather than the linear expression of a single economic logic) has not simply subsumed life in its economic processes of production, but actually drawn on life as a means of redefining a whole new political rationality where economic and vital processes are from the beginning deeply intertwined” (2009: 235).
- 46 This is, of course, not the same as the current debate about population in relation to development and environment. See: Fischer, 2009; Fletcher et al, 2014.
- 47 Foucault, 2007; 2008; Fassin, 2009; Dean, 2010: 127. Note that this is a rather blunt reading of Foucault’s biopolitics that, for example, does not take into account more nuanced discussions about differential forms of power or subjectivity. See Hardt and Negri, 2009: 56-63.
- 48 Hence I here focus only on the first and third notions of biopolitics that Lemke (2011: 34) distills from Foucault’s work.
- 49 See Rist, 2008; also Rose, 2007 for biomedicine and health.
- 50 In the first volume of *History of Sexuality*, Foucault (1990: 137) argues that “if genocide is indeed the dream of modern powers, this is not because of a recent return of the ancient

right to kill; it is because power is situated and exercised at the level of life, the species, the race, and the large-scale phenomena of population". For a bizarre modern-day illustration of how biopolitics in the name of addressing the environmental crisis tries to avoid life before conception, see <http://www.popoffsets.org/>, accessed 21 October 2015.

51 Bowring, 2011: 93.

52 Marx, 1976: 875.

53 Harvey, 2003; 2006; see also Perelman, 2007.

54 Duffield, 2007: 5, and further. See also Cavanagh, 2014. Of course, the history behind this distinction is skipped here completely, and encapsulates major debates on the empirics of global historical development and change in relation to colonialism, racism, gender, core-periphery and the like; all issues that are crucial to development studies and what we teach in our International Development Bsc and Msc at Wageningen University.

55 Arendt, 2005: 75; see also Braun, 2007; Blencowe, 2010. Arendt occupies a complex and contradictory relation to Marx here, as she believed that it was Marx, amongst others, who cemented this idea into common-sense (Arendt, 1998).

56 About the 'idea of progress', see Shanin, 1997. There is, of course, something very alluring about the 'aesthetics of perfect development', and many look for this, including in development practice, as former SDC PhD candidate Jilles van Gastel showed in her dissertation 'The Purification of Aid' (Gastel, 2011).

57 Stahel, 1999. Obviously, I am skipping many long and complicated histories that I do not have space to go into here. For two of the most trenchant of these historical analyses, see Harvey, 1989 and Hardt and Negri, 2001. For more on 'life-as-information', see Dillon and Read, 2009, especially chapter 4.

58 This is something that is obviously also very important within Wageningen University, see: <http://www.wageningenur.nl/nl/Dossiers/dossier/Big-Data.htm>, accessed 8 November 2015.

59 Escobar, 1997: 93; see also Escobar, 1995. Important to add here is, in Arturo Escobar's words, the resultant 'perpetual recognition and disavowal of difference' of linear, teleological thinking. In simpler terms: 'underdeveloped', different peoples – 'them' - needed to become like 'developed' peoples – 'us' - although their background, race, colour, religion, culture or customs often meant that they never really could and would therefore always still be seen as 'inferior'.

60 Cavanagh, 2014: 273.

61 Fletcher, 2010; see also Biermann and Mansfield, 2014.

62 This theorization builds in particular on Arendt, 1998; Nealon, 2008; Massumi, 2015b.

63 Importantly, this also goes for development within the context of the cold war, where it may seem as though the socialist countries had different aims than building capitalist structures in 'third world' countries. As Hardt and Negri (2009: 90) argue: "the dominant capitalist countries, as numerous authors have argued, promote and impose throughout the twentieth century ideologies and economic policies of development that, although cast as a benefit to all, reproduce the global hierarchies of modernity-coloniality. The programs

of the socialist states, however, are equally dedicated to this same notion of development, perversely repeating the figure and structures of power in the capitalist countries they oppose". And later, on page 268-9: "it is important to understand that socialism and capitalism never were opposites, but rather, as many critical analysts of the Soviet Union claimed, socialism is a regime for the state management of capitalist production", something that Hardt and Negri claim worked through in "the various forms of developmentalism that dominated the economic ideology of the subordinated countries in the latter half of the century, equally in countries aligned with the United States or the Soviet Union".

- 64 Interestingly, the upshot is of course that empirical development realities are increasingly conforming to the epistemology of historical change as development.
- 65 This and the next paragraph, including quotes, are based on and derived from Massumi, 2015b: 41-43.
- 66 The financial system is of course the archetypal domain in which processual intensifications rule the roost. For an ethnographic exposition of how this works out in the daily lives of people, see the brilliant book by Karen Ho (2009). See also Bauman (2000) who talks about liquidity instead of process to come to similar ideas about how change has been changing of late. The difference between emphasizing process rather than the term 'liquidity' lies in its more direct link with the term capital.
- 67 See: <https://pe3c.wordpress.com/>.
- 68 Harvey, 2006: 71; Smith, 2008.
- 69 Köhne, 2014; Rasch and Köhne, 2015.
- 70 Massumi, 2015b: 40. These complex, processual temporalities are, not coincidentally, also at the heart of current financialised capitalism. See Cooper, 2010.
- 71 This, of course, has a long pedigree. As Hannah Arendt stated in 1958 after discussing historical changes in the science disciplines: "development, the key concept of the historical sciences, became the central concept of the physical sciences as well. Nature, because it could be known only in processes which human ingenuity (...) could repeat and remake in the experiment, became a process, and all particular natural things derived their significance and meaning from their functions in the over-all process". Arendt, 1998: 296.
- 72 McMichael, 2006; McAfee, 2003; Rajan, 2006; Cooper, 2007; 2008; Carolan, 2009. For a policy example, see the Dutch 'natural capital agenda', <https://www.rijksoverheid.nl/onderwerpen/ontwikkelingssamenwerking/documenten/kamerstukken/2013/06/22/kamerbrief-over-uitvoeringsagenda-natuurlijk-kapitaal>, accessed 22 October 2015.
- 73 Indeed, they entrain the academic or managerial eye to see nature as capital, including human nature. Robertson, 2006. See also Biermann and Mansfield, 2014.
- 74 McAfee, 1999. See also West, 2006; Brockington et al, 2008; Brockington and Duffy, 2010; Igoe, et al, 2010; Büscher et al, 2012; Fairhead et al, 2012; MacDonald and Corson, 2012; Arsel and Büscher, 2012; Sullivan, 2009; 2013; Fletcher et al, 2014. Boelens et al, 2014; Büscher and Fletcher, 2015.

- 75 Andrejevic, 2013 (whole paragraph). See also Oreskes and Conway, 2010.
- 76 This equally goes for our research and publications, which are similarly increasingly measured and looked at in quantitative terms.
- 77 Smith, 2015.
- 78 Collard et al, 2015.
- 79 See Katz, 1995; Swyngedouw, 2010.
- 80 For a philosophical approach, focused especially on open up radical political imaginary and alternative subjectivities, see Hardt and Negri, 2004; 2009; Viveiros de Castro, 1998; for proposals around 'degrowth', see the literature suggestions on <http://www.degrowth.org/>; for broad political proposals regarding climate change, see Klein, 2014; for more concrete proposals regarding the 'bioregional economy' or building alternative economies, see Scot Cato 2013; Gibson-Graham, et al, 2013; and for their specific 'localization variant', see De Young and Princen, 2012. For thoughts about redistribution within neoliberal settings, see Ferguson, 2015. The list could go on and on.
- 81 See Quarles van Ufford et al, 2003; Boelens, 2015: 35.
- 82 Shapin and Schaffer, 2011: xlix.
- 83 See <http://plato.stanford.edu/entries/einstein-philsience/>, accessed 21 October 2015. A similar message also comes from one of the founders of modern-day economics, John Maynard Keynes, who argued that "The hypothesis of a calculable future leads to a wrong interpretation of the principles of behavior which the need for action compels us to adopt, and to an underestimation of the concealed factors of utter doubt, precariousness, hope and fear". See Keynes, 1937: 122; Massumi, 2015a.

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'Life is capital and capital is life. This mantra informs much of development and change in the 21st century. But what if the co-constitution of life and capital are at the root of the increasingly extreme development problems the world faces? As we witness rapid intensifications of inequality, marginalization and environmental degradation this is a question we need to consider seriously. An approach based on 'daring rootedness' is needed to research, rethink and redirect development and change in the 21st century.'