Social transformation

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Citation
Haas, H. de, Fransen, S., Natter, K., Schewel, K., & Vezzoli, S. (2020). Social transformation. Retrieved from https://hdl.handle.net/1887/3147204

Version:	Not Applicable (or Unknown)
License:	Leiden University Non-exclusive license
Downloaded from:	https://hdl.handle.net/1887/3147204

Note: To cite this publication please use the final published version (if applicable).

Working Papers

Paper 166, July 2020

Social Transformation

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MADE project paper 16

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Abstract

Over centuries past, human societies have been through fundamental changes often defined as 'modernisation'. Despite huge advances in knowledge, social science has struggled to conceptualise the nature of these changes and to integrate insights from across different disciplines into a single framework. Disciplinary fragmentation and methodological parochialism as well as a postmodern aversion to 'grand theory' have impeded theoretical synthesis. To overcome this impasse, we introduce social transformation as a meta-theoretical conceptual framework for studying 'big change'. Defining social transformation as a *fundamental change in the way that societies are organised and resources are distributed*, we distinguish five interconnected dimensions – the political, the economic, the technological, the demographic and the cultural – which together constitute the 'social realm'. Studied simultaneously, these dimensions are able to capture 'big change' in its universal aspects while keeping sight of the diversity of its concrete manifestations. We apply this framework to explore how the 'modern transformation' has reshaped societies and to show how the interplay of the various political, economic, technological, demographic and cultural transitions have transformed social life around the globe in strikingly similar ways – notwithstanding the varied, unique ways in which this 'modern transformation' has concretely manifested itself across societies and over different periods.

Keywords: social theory, social transformation, social change, development, modernisation

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Acknowledgments: The research leading to these results is part of the MADE (Migration as Development) Consolidator Grant project and has received funding from the European Research Council under the European Community's Horizon 2020 Programme (H2020/2015-2020)/ERC Grant Agreement 648496. The authors are grateful to Lea Müller-Funk, Ronald Skeldon and Siebert Wielstra for their useful comments on earlier versions of this paper.

Contents

1. Introduction 4

2. The struggle to conceptualise modernisation 5
2.1 Development: concept and critiques 6
2.2 Modernisation: concept and critique 8
2.3 The case for 'big theory' 10

3. Social transformation: a conceptual framework 12
3.1 Defining and conceptualising social transformation 14
3.2 Operationalising: five dimensions of social life 18
3.3 Constellations and sequencing of dimensional change 22

4. From the ashes of deconstruction: investigating the 'modern transformation' 23
4.1 The political dimension: national state formation 26
4.2 The economic dimension: the growth and spread of industrial capitalism 28
4.3 The technological dimension: mechanisation, standardisation and automation 30
4.4 The demographic dimension: demographic transitions and urbanisation 33
4.5 The cultural dimension: rationalisation, individualisation and consumerism 35

5. Conclusion 38

References 41

1. Introduction

Over past centuries, societies around the world have undergone fundamental and transformative processes of change. Yet, despite huge advances in research, knowledge and 'data', the social sciences have struggled to conceptualise the nature of these changes and to integrate increasingly fragmented insights from across disciplines and sub-disciplines into unifying frameworks. A postmodern aversion to 'grand theory', academic specialisation and disciplinary and methodological parochialism have all impeded theoretical synthesis and conceptual advancement in our understanding of processes of societal change. The paradox seems that, the more detailed our knowledge, the less we are able to draw general observations applicable to societies overall.

In popular and scientific discourse, the processes of change associated with the emergence of industrial capitalism since the mid-eighteenth century have often been labelled 'modernisation' or 'development'. The implicit or explicit assumption of dominant interpretations of these concepts is that 'development' and 'modernisation' will unfold in a rather neat, predictable and therefore inevitable succession of 'stages' towards 'progress', following, more or less, the historical examples of European capitalist growth and national state formation (Rostow 1960; Tilly 1992). Modernisation theory has been frequently criticised for its Eurocentric, colonial and teleological biases, largely for good reasons. Partly under the influence of neo-Marxist critique and dependency theory, modernisation concepts have often been dismissed as social constructs and ideologies that serve powerful elite classes within societies and, on the international stage, large corporations and wealthy countries (Crush 1995; Escobar 1995; Nederveen Pieterse 2001). Moreover, within a broader context of postmodernist social theory, modernisation theory has been dismissed as too general, top-down and deterministic to acknowledge and to explain the huge diversity in the ways in which global change has affected societies, as well as the sustained, structural inequalities it has generated.

In reaction to normative and empirical critiques on the concepts of 'modernisation' and 'development', postmodern social science has discredited and discouraged attempts to elaborate on 'grand theories' to understand the nature of macro-level social change. Instead, the focus has shifted towards more subjective understandings and experiences of reality. Yet, while social scientists have excelled in 'deconstructing' old concepts like modernisation theory as part of the postmodern theoretical discourse, they have been strikingly unable to 'reconstruct' by proposing alternative, more viable concepts and theories. This has coincided with a growing inability (and an apparent unwillingness) to transcend disciplinary and methodological boundaries. This pertains not only to the difficulties for social sciences to grasp the 'modern' condition but also, more generally, to analyse meta-level change in human societies in both its universal characteristics and unique manifestations.

In spite of valid critiques of the top-down characters of 'grand theories' and their ignorance of agency, through their very focus on the uniqueness of particular experiences, postmodernist approaches generally fail to sufficiently account for the fact that human societies around the globe have gone through similar fundamental transformations – such as the global shift from rural-agrarian to urban-industrial societies and lifestyles – which are difficult to deny and therefore have a certain 'universal' character. History seems to reveal certain patterns, regularities and, perhaps, even a certain degree of 'direction' – whether reversible or irreversible – which invites the theorisation of processes of societal change. We are therefore in continuous need to develop new conceptual tools with which to grasp 'big change', to disentangle its various dimensions, to identify the social mechanisms explaining profound social changes and to transcend disciplinary and methodological boundaries by bringing fragmented insights together under a single conceptual umbrella.

In this paper, we introduce social transformation as a conceptual framework and methodology for studying 'big change'. Defined as a *fundamental change in the way that societies are organised and resources are distributed*, we operationalise social transformation by distinguishing five interconnected key dimensions of social change – the political, the economic, the technological, the demographic and the cultural – which together comprise the 'social realm'. We argue that, together, these dimensions of social transformation allow us to grasp 'big change' in a way that avoids both the top-down (1) *determinism* of grand theorising as well as the (2) *relativism* of much postmodern thought – by distinguishing the unique manifestations as well as the general features of social change.

Building upon prior efforts to conceptualise social change, this paper synthesises a wide range of research from across the social sciences, an inter-disciplinary effort which reflects a five-year endeavour by the multidisciplinary team of authors to learn to think as *social scientists*. During our discussions and while drafting and redrafting this paper numerous times, we tried to be as non-disciplinary as possible and to fully engage with knowledge and perspectives offered from across the social sciences so as to develop common ways of understanding social change. We tried to elaborate concrete and empirically tangible ways for studying and understanding macro-level change in human societies – conceptual approaches that avoid both the grand theory 'deterministic trap' and the postmodern 'nuance trap' (see Healy 2017). In so doing, we addressed the following question: *How can we conceptualise 'social transformation' in such a way that it is able to identify common patterns and social mechanisms and, at the same time, provides structured ways of explaining variation in its concrete manifestations across time and space?*

In the first part of the paper we argue that the general inability of the social sciences to conceptualise 'modernisation' reflects (over) specialisation and illustrates the need for new theoretical frameworks that are able to synthesise insights from different disciplines and fields of specialisation. The second part of this paper defines and operationalises our social transformation framework. The third part applies the social transformation framework to identify the substantive processes of change which, together, capture the essence of what we refer to as the 'modern transformation':

- national state formation (the political dimension);
- the growth and spread of industrial capitalism (the economic dimension);
- mechanisation, standardisation and automation (the technological dimension)
- demographic transitions and urbanisation (the demographic dimension); and
- rationalisation, consumerism and individualisation (the cultural dimension).

2. The struggle to conceptualise modernisation

Processes of fundamental and transformative social change that have changed humanity over the past few centuries are usually associated with the formation of modern national states (see Tilly 1992), the growth and spread of modern industrial capitalism and the fundamental cultural, demographic and technological changes connected to the massive transfer from rural to urban livelihoods and lifestyles. Researchers, governments and international organisations have often labelled these processes as 'modernisation' or 'development'. These terms are familiar but also bring a certain fuzziness and discomfort. Their frequent use in research, politics and the media show their appeal for describing various changes that are complex and difficult to grasp but that have made contemporary societies profoundly and unmistakably different compared to societies in the mid-eighteenth century. Yet a certain vagueness remains when it comes to specifying what this development and modernisation actually entails.

Conventional discourses of development and modernisation have also been criticised for suggesting a certain inevitable course and direction of change and 'progress' and being part of ideologies that serve to justify the injustices of colonialism, hegemonic military intervention and *laissez-faire* economic policies which make the rich richer and the poor poorer. Teleological assumptions about development and modernisation (as well as 'globalisation') suggest that they are the 'natural' process to which 'there is no alternative'. This obscures the ideological-political nature of these concepts and the social theories associated with them, a problem that has been at the core of later postmodern critiques.

2.1 Development: concept and critiques

Most critiques of 'development' embody a simultaneous attack on the *concept*, *discourse* and *practice* of development. Within this view, both the discourse and practice of development are deeply embedded in global power structures: after the Second World War, when the United States, along with the USSR, took over the position of Britain and France as dominant world hegemons and colonisation formally ended (although the Soviet empire was only dismantled in 1991), colonial discourses were replaced by the discourse of 'development'. However, according to critiques, 'development' essentially continued colonial practices of economic exploitation by co-opting the (often autocratic) political-economic elites of newly independent countries, imposing unequal terms of trade and, since the 1980s, using foreign debt as a lever to pressure the governments of 'developing' countries to reform their economies according to neoliberal principles and to cut back on social spending under the banner of 'structural adjustment' (see Stiglitz 2002).

While the old colonial notions of racial and religious superiority and the idea that European nations were on a 'civilising mission' lost credibility, they were replaced by other concepts to justify development interventions and economic reforms. In this context, for instance, 'globalisation' is often portrayed primarily as an economic process associated with the upsurge in foreign direct investment (FDI) and the liberalisation of cross-border flows of capital, goods and services, as well as the emergence of new international divisions of labour (Petras and Veltmeyer 2000). However, globalisation is not just about technological and economic change: it is also a deeply political process, often conceived in normative or ideological terms (de Haas *et al*. 2020). Critics of globalisation argue that it is not a natural or inevitable new world order but, rather, the latest phase in the evolution of the capitalist world economy which, since the fifteenth century, has expanded into every corner of the globe (Petras and Veltmeyer 2000). The current globalisation paradigm emerged in the context of neoliberal ideologies – initiated in the 1980s by the Reagan administration in the US and the Thatcher government in the UK – which were designed to roll back welfare states and decrease government intervention in labour and capital markets (de Haas *et al*. 2020). This process accelerated after the fall of the Berlin Wall in 1989 – often seen as the start of the era of 'neoliberal globalisation' and market triumphalism. Globalisation is therefore also an ideology about how the world should be reshaped – summed up in the Washington consensus, a development ideology which stresses the importance of market liberalisation, privatisation and deregulation, as development recipes (Gore 2000; Mitchell and Sparke 2016; Stiglitz 2002).

Rist (2013) therefore argues that the notion of 'development' can be cast as part of the religious field, as a 'fetish' with beliefs, myths and rituals developed to legitimise the ideology of growth and the market economy. According to him, development 'agents' promote a universalist, technocratic discourse in a *deliberate* strategy to make people, including the poor and vulnerable, believe that economic and political 'reforms' are not only *inevitable* but also in their best interest (which is a form of false consciousness in the Marxist sense) and that, after a temporary period of difficulty and necessary adjustment, they will be rewarded by long-term

progress, growth and prosperity. According to critics, however, the reality is quite the opposite: colonialism and the ideology of 'development' have actively *contributed* to underdevelopment and the destruction of political, economic, social and cultural structures in regions like Africa and Latin America (Davidson 1992; Frank 1966). In the era of neoliberal globalization, such practices are basically continued, for instance by spurring the loss of food sovereignty through 'free trade'[1] agreements (Otero 2011) or the defunding and privatisation of public services such as education, although development discourse and practice officially proclaim the opposite.

Apart from the discussion about the empirical accuracy of these claims, there is little doubt that the technocratic air of the 'development discourse' is anything but neutral and usually serves to conceal underlying political and ideological agendas. However, the observation that development, instead of being a neutral concept, often reflects neo-colonial and hegemonic ideologies and practices, does not make it less relevant for understanding social change around the world *as a real political and ideological process*. If we wish to understand the 'modern transformation', we cannot ignore the impact of colonial practises, development ideologies and the 'grand plan' of the hegemonic West for the rest of the world. Although we can reject such practices on moral or ideological grounds, these (often immoral) practices of colonialism and post-colonialism have, nevertheless, shaped the world in which we live. Ironically, ignoring this would therefore be tantamount to depoliticising our analysis of social change – a major error because social transformations are deeply political in nature, an insight which dominant, 'technocratic' development theories and ideologies ignore and actively try to conceal.

As part of the critique on development 'blue print thinking' and a postmodern shift away from 'grand theory', researchers have paid growing attention to the role of people's agency in making their own history. This coincided with the introduction of new conceptions of development that extend beyond the economic domain. Since the 1970s, researchers have increasingly stressed people's agency and the need to take their views and unique experiences into account. For many anthropologists and sociologists doing fieldwork among vulnerable populations across the world, this accompanied a growing realisation that people cannot be cast as passive victims of capitalist forces – as was common in Marxist critiques and dependency theory – but that they actively try to resist or escape constraints to improve their livelihoods (Ellis 1998; Lieten and Nieuwenhuys 1989). In this effort, the poor often challenge regulations and 'seize their rights', such as through tilling expropriated land, erecting a house in slum areas, occupying vacant buildings, taking up jobs in the informal sector or paying a smuggler to enable them to migrate across formally closed borders. As Scott (1985, 136) argued in his *Weapons of the Weak,* the political life of subordinate groups is 'to be found neither in the overt collective defiance of powerholders nor in complete hegemonic compliance, but in the vast territory between these two polar opposites'. Thus, we might say that people contribute to 'development from the bottom', outside and sometimes in defiance of the official 'top-down' development projects of governments and elites.

Such increased attention to people's real lives and their agency has also implied a fundamental critique of the use of average economic performance indicators, such as GDP *per capita,* to measure development. For instance, Sen (1999) argued that we should redefine development as the *process of expanding the substantive freedoms that people enjoy*. To operationalise these 'freedoms', Sen used the concept of *human capability*, which is the ability of human beings to lead *lives they have reason to value* and to enhance the substantive choices they have (Sen 1997, 1959). Sen argued that income growth itself should not be the litmus test for development theorists but that the issue should be whether the capabilities of people to

[1] 'Free trade' is placed in quotation marks because it is a misnomer, since the actual substance of 'free trade' agreements shows a high level of regulation, while trade rules along with technological advantages, economics of scale and state subsidies often put producers in wealthy countries at an advantage (see Martin and Taylor 1996).

control their own lives have expanded. This is why Sen and other development theorists (see Alkire 2002; Nussbaum 2001) have strongly argued in favour of putting inequality and poverty central in development analyses and of using a much wider set of development indicators to assess development. This has, for instance, contributed to the elaboration of the UNDP's Human Development Index (HDI).

Despite these advancements, the 'postmodern' focus on the way in which the poor and vulnerable deploy agency to defy structural constraints can – perhaps unintentionally – be easily (and dangerously) confounded with the (neo-liberal) belief that people are responsible for their own success and that, in the absence of government constraints, people's economic self-interest will drive them to become productive and generate wealth. Moreover, while the argument that development should be about increasing people's ability to lead the lives *they have reason to value* (Sen 1997, 1959) seems morally right and practically useful, such micro-level development approaches, however valid and important, do not help to really understand processes of social transformation at the macro-structural level. While there is a vast academic literature on 'development', over the past decades development scholars have conspicuously shied away from proposing alternative definitions and conceptualisations of development as a macro-structural process of social change happening at the levels of societies. Overall, the term 'development' remains conceptually constraining for the study of fundamental social transformations across different historical periods because of its underlying ideological and teleological premises.

2.2 Modernisation: concept and critique

Like development, modernisation is often considered as an ideological rather than a scientific concept. In its original conception, modernisation theory refers to the process through which 'traditional' societies (supposedly rural, agrarian and poor) have moved towards 'modern' societies (supposedly urban, industrial and wealthy). 'Modernisation' became a dominant ideology *and* social sciences paradigm – particularly in economics – in the 1950s and 1960s, when the international development agenda took off and development interventions were shaped and justified by theories (and associated ideologies) about how societies (should) become 'modern'. Rostow's *The Stages of Economic Growth* (1960) is the most prominent example of one such modernisation theory. It presents both a typology of stages as well as a causal analysis delineating the conditions and economic processes required to move from a 'traditional society' (a primary-sector economy) through 'take-off' (industrialisation) to the 'age of mass consumption'. Such theories provided the conceptual bases for international development policies and economic ideologies exported by Western hegemonic powers to developing countries in the post-World War II era.

Modernisation theories, however, have arguably deeper intellectual roots than more-recent development theories. Most of the classical grand narratives about long-term social change, such as those proposed by Karl Marx (1973) and Max Weber (1904), may also be classified as modernisation theories. Although they differ in their emphases, proposed causal mechanisms, and predictions, all modernisation theories share the assumption that economic, cultural and political changes interlock and unfold themselves in a coherent and even predictable way (Calhoun 2002; Inglehart 1997). Marx and Engels, for example, emphasised how technological and economic transformations (i.e. changes in the means of production) determined cultural and political shifts – particularly the nature of class struggles – and produced an inevitable sequence of political-social transformations (Marx and Engels 1998 [1848]). Marx identified several 'stages of history', from primitive communism and slave society, to feudalism and from there to capitalism, socialism and eventually communism. Although Marxist political economy and Rostowian modernisation theories are radically

different in their focus, interpretation and predictions, both are anchored in teleological worldviews that see industrialisation, capital accumulation and urbanisation as inevitable, irreversible processes.

As part of the rise of post-modern social science in the 1970s and 1980s, the modernisation concept was subject to the same criticisms levied at the concept of development; many of the arguments against the concept of 'development' described above also apply to the concept of 'modernisation.' Yet, also like development, modernisation theory is still very much alive (Marsh 2014). Particularly since the 1990s, scholars have attempted to overcome the pitfalls of earlier linear, deterministic and Eurocentric assumptions while retaining the conviction that sets of intrinsically interrelated political, economic and cultural shifts have yielded *fundamental* and, in this sense, 'universal' changes in societies associated with rather radical changes in dominant ideas about the 'good life'. After all, irrespective of our moral judgment about these changes, they have happened and seem to be driven by deep transformation processes that are difficult to deny.

Three core critiques of classical modernisation theory are well summarised by Inglehart (1997). The first critique is that change is not linear. Even if we see common trends in the direction of certain shifts – such as rising rates of urbanisation – the sequence, timing and nature of these shifts vary from society to society. Second, it seems problematic to single out one main driver of social transformation, such as Marx's central argument that changes in the means and relations of production (the 'base') determine a range of shifts in the sociocultural and political domain (the 'superstructure') (Marx 1973). Instead of determinism, the relationship between the economic 'base' and the cultural and political 'superstructure' seems somewhat reciprocal and mutually reinforcing, which makes it difficult to single out one original cause or trigger of change and compels us to take the entire complex of change (which we call 'social transformation') as the object of our study. Third, modernisation is not a homogenous process. Although industrialisation first occurred in the West, this latter represents only one version of modernisation outcomes and, as Eisenstadt (2000) shows, also 'the West' is diverse in its experiences and manifestations of what 'modernity' concretely looks like. For instance, when modernisation is often equated with 'democratisation', this ignores Fascist and Communist development 'outcomes' or phases in Europe (Inglehart 1997) that are also profoundly 'modern'.[2]

From one perspective, the social transformation framework that we elaborate in this paper could be seen as an attempt to revamp 'modernisation theory' (see Marsh 2014). However, our hesitation to use the term 'modernisation' stems from its ambiguous and ideologically loaded meaning. From its very beginnings, attempts to understand modernity and its generating processes were polarised between two contradicting perspectives: one which saw

[2] Ultimately, the idea that all nations of the world should and will inevitably follow the (Western) European and North American historical path of economic development, technological-cultural modernisation, rationalisation and democratisation (cf. Fukuyama 1992) is not only teleological but also ahistorical and arrogant. It is teleological because it is based on the idea that history has a purpose and direction, which seems to deny human agency and people's – limited but real – ability to make conscious choices to change social and economic structures. It is ahistorical because it denies the fact that 'non-Western' societies that are presumed to be 'developing' do so within global power structures in which they often occupy a subordinate place, very much in contrast to the Europe and North America of the nineteenth and twentieth centuries which dominated global affairs in that period. It is arrogant because of the presumption that Western ideas and institutions are inherently superior and that all 'modern' ideas and institutions originated in (a presumably Christian and white) Europe. This is not only morally wrong but also empirically questionable. As Amartya Sen (2007, 2009) has forcefully argued, many ideas and values such as rationality, democracy and justice are less quintessentially 'Western' and much more universal than is often presumed, while contemporary 'Western' cultures are highly diverse and, in themselves, represent the outcome of centuries of conflict, evolution and cultural exchange with non-European societies and cultures.

modernisation as a process of positive, emancipating and progressive force, 'promising a better, more inclusive, world' (Eisenstadt *et al*. 2002, 5); and the other painting modernity as a destructive force which, in the guise of technological advancement and individual profit maximisation, brings out the 'dark side' of humanity (see Alexander 2013). We do not aim to resolve the ambiguity of the term 'modern' nor to weigh in on yet another debate about whether the current moment in history is one of 'modernity' or 'postmodernity'. Despite their importance, such semantic and normative issues risk becoming a distraction from the analysis of the nature, causes and diverse historical and geographical manifestations of the fundamental change processes we aim to understand.

These powerful critiques on 'grand theories' of modernisation and development have increasingly discouraged social scientists from grand historicising and comparative social analyses. As such, postmodern thought was a healthy and largely useful counter-reaction against grand theorising but the pendulum has clearly swung too far the other way, from grand generalisation to grand relativism. Postmodern critique has excelled in *deconstructing* concepts but has generally failed to provide alternative concepts and frameworks which would allow us to achieve a more nuanced understanding of 'big change' that does not ignore the very existence of such big change. After all, it is difficult to deny that many patterns of social life have fundamentally altered societies around the globe. Notwithstanding huge variations in the concrete manifestations of these changes at national, regional and local levels, they do have a number of common features.

One such example is the shift away from agrarian-peasant societies towards industrial-urban societies; the shift started in late-eighteenth-century Europe but spread around the world and had become a *global* phenomenon by the mid-twentieth century. Virtually all societies around the globe have been urbanising, with economic production, innovation, cultural life and populations increasingly concentrating in cities (Bloom *et al*. 2008, 772). In this light, if social scientists seek to identify similarities, rather than differences, surprising findings often emerge. For example, an increasing body of evidence suggests that the urbanisation of many contemporary 'developing countries' – and concomitant rural-to-urban migration – is strikingly comparable with the speed and patterns of urban growth in nineteenth- and early-twentieth-century Europe (Annez and Buckley 2009; Preston 1979; Williamson 1988). The demographic transition is another related example of an apparently 'universal' transformation. Despite regional and historical variations, as well as earlier claims about major exceptions to these trends, the demographic transition – that is, the general demographic shift of society from one of high birth and high infant death rates to that of low birth and death rates – has turned out to be a global and indeed 'universal' phenomenon (Reher 2004). It goes without saying that urbanisation and demographic transitions are not stand-alone phenomena but reflect a much deeper process of meta-change in societies – which comprises a dense, interconnected web of political, economic, technological, demographic and cultural changes.

2.3 The case for 'big theory'

It is important to specify the nature of the theoretical gap which this paper seeks to address. It is true that considerable progress has been made *within* certain disciplines, such as political science, sociology, geography and demography, which helps us to develop a more-generalised understanding of transformation processes such as national state formation (see Tilly 1992), urbanisation and demographic transitions. Yet, an impasse remains concerning the integration of such insights into a more unified social-scientific framework that can synthesise fragmented disciplinary insights in order to develop a more profound and systematic understanding of meta-processes of social transformation, the broad historical forces of global change, their

underlying social mechanisms and their concrete and diverse manifestations over space and time.

This impasse reveals a deeper and more systematic challenge for the social sciences: the difficulty of conceptualising 'big change' in societies and, particularly, of integrating insights from different disciplines and methodological traditions into more unified theoretical frameworks. Increasing specialisation and disciplinary and methodological parochialism have increasingly characterised modern social sciences. The irony seems to be that, although there has been a spectacular increase in detailed empirical knowledge about social change, our ability to *understand* (in a Weberian sense of *verstehen*) the nature of macro-level change has lagged behind or even appears to have become more difficult. The inability and unwillingness to communicate across disciplinary and methodological boundaries is reinforced by the use of different concepts, jargon and disciplinary languages (often to indicate the same social phenomena). Due to the lack of overarching conceptual frameworks, knowledge has increasingly remained fragmented, unconnected and scattered across the social sciences and fields of (sub-)specialisation.

The challenge remains as follows: how do we advance coherent explanatory frameworks for understanding common processes of social change without falling into the deterministic and teleological (or Western-centric) trap of the 'grand theories' of the past? Improved conceptual frameworks should be able to simultaneously detect common patterns *and* explain variations in their specific manifestations over time and across societies. In other words, they should be able to synthesize the *universal* as well as the *unique* aspects of social change. Meta-theoretical perspectives are needed more than ever exactly because, nowadays, we have access to vast amounts of data and knowledge. However, this empirical abundance comes with the huge risk that we can no longer 'see the wood for the trees'. By focusing on what is unique and exceptional we easily blind ourselves to common patterns of social change.

In fact, it is impossible to understand one (the universal) without the other (the unique); because only by discerning general patterns and continuities can we distinguish what is unique or exceptional and, importantly, understand *why* that is the case. Moreover, adequate meta-conceptual tools should help us to systematically integrate insights from across disciplines and fields of specialisation by providing a common 'language' and frames of reference so that insights can be effectively communicated and integrated. In this context, it is important to emphasise that 'facts' do not speak for themselves. In order for facts to acquire meaning, they need to be embedded in theoretical narratives that can function as interpretative frameworks, with the common goal of achieving an improved *understanding* of the nature and causes of social change.

Assessing meta-processes of social change in their full complexity *and* diversity is a formidable intellectual challenge. Fortunately, some major examples of systematic historical-comparative 'big picture' analyses can inspire us. For instance, Tilly's (1992) compelling historical meta-account of modern state formation shows that, for better or worse, the originally European model of national states, including large bureaucracies, notions of citizenship and formal territorial borders, has spread around the world and become the explicit or implicit model for *all* states. Today, the national state is the central organising principle of international relations.[3] Eisenstadt's (2000) concept of 'multiple modernities' provides another example. He suggests that there are common transformations occurring across a wide range of institutions in modernising societies – in political structures, economic organisation, family life or modern education, for example – that are 'distinctively modern' (2000, 2). Yet, the actual

[3] Despite the frequent occurrence of (violent or non-violent) struggles and huge variations in state governance, the legitimacy of states in monopolising the use of violence and governing populations living on clearly demarcated territories *as such* is rarely contested. This shows the extent to which national state formation signifies a structural political and cultural transformation away from feudal, city-state or non-state political models.

manifestations of these trends are inevitably influenced by the cultural heritages and historical experiences of different societies, giving rise to multiple manifestations of modernity around the globe. These 'modernities' are thus unique but at the same time part of something more universal. It seems possible, then, to reject the classic assumption that all modernising societies will follow exactly the same trajectory as the 'West' while retaining the idea of the existence of a more-general 'modern' transformation.

In economic analysis, we can also witness a recent tendency to steer away from a singular focus on neo-classical orthodoxy, mathematical modelling and multivariate analysis and move to studying bigger, long-term processes of change and their underlying causes – such as global trends of de-concentration and concentration of capital ownership (Piketty 2013). The renewed attention for (the causes of) structural inequality inevitably brings back into the picture issues of power that the neo-classical orthodoxy has largely ignored for decades. We can observe an increase of interest in the relation between inequality and power, which is visible in a revival of the work of Polanyi (1944) and other political economists (see, for example, Stiglitz 2002). This illustrates that, as social scientists, economists cannot stay away from broader questions of power and the socially embedded nature of economic processes. It is precisely the socially disembedded nature of much recent economic scholarship that seems to explain its inability to understand and explain real-world economic processes, in which human subjectivities, risk aversion, inequality and power imbalances play a big role.

3. Social transformation: a conceptual framework

This paper takes on the challenge of proposing an overarching conceptual framework that incorporates 'big change' while allowing for a structured explanation of diversity in its concrete manifestations. It does so by proposing and elaborating social transformation as a meta-theoretical device to achieve a theoretical synthesis across the social sciences. Meta-theory here is understood as a broad perspective or conceptual framework that overarches several disciplinary theories (see Ritzer 2007).

The concept of 'transformation' is perhaps the most strongly associated with the work of Karl Polanyi. In his seminal book *The Great Transformation* (1944), Polanyi provides conceptual tools to explain the non-linear, non-teleological and inherently *dialectic* nature of social change, as arising out of the conflict between political forces. Polanyi argued that the development of modern market economies is inextricably linked to the emergence of modern states, as *laissez-faire* reformers have tried to 'disembed' the economy from social forces to create a 'market society' where all things are commodified – including land, labour and money. According to Polanyi, the separation of markets from societies is a utopian project, as economies, by their very nature, are intrinsically embedded in societies. Without denying the (aggregate) material wealth which the market system has brought, Polanyi argued that, since the nineteenth century, (Western) society has been subordinated to market laws so that society functions to fulfil economic purposes rather than the economy fitting the needs of society. This separation of the 'free market' from the fabric of society and the concomitant *laissez-faire* policies have had many effects, including increases in inequality, large-scale social dislocation, cultural alienation and economic discontent.

Polanyi argued that, as an inevitable consequence, 'counter-movements' would arise as societies attempt to re-embed the economy in what he called the 'double movement'. Such counter-movements can take benign and malign guises, such as in social-democratic reform guided by a redistributive agenda (such as the 'New Deal' in the US of the 1930s as a political response to the Great Depression) or, alternatively, in totalitarian fascism and Stalinism. Polanyi's hypothesis of the double movement exemplifies the usefulness of theorising the underlying mechanisms through which political change comes about in modernising societies

in response to and in interaction with broader transformation processes such as the rise of capitalist industrialism.

It also provides a way of theorising political change in 'dialectic' ways that incorporate conflict. This stands in sharp contrast to Rostowian, neo-classical and other depoliticised views which portray 'development' as a smooth process. In their idealised and 'smooth' portrayal of modernisation, dominant development theories ignore the centrality of political conflict, violence, war and associated increases in governments' power to secure resources for state-building in Europe's modern history. Economic 'development' involves significant long-term power struggles and conflict as well as the expropriation and exploitation of the peasantry, working classes and peripheral areas, primarily for the benefit of the wealthy classes in rich countries and small elites in 'developing' countries. 'Modernisation' has been anything but the smooth ride towards increase prosperity for all but has involved significant political, technological and cultural transformations that have been part and parcel of 'modernisation'. These transformations have also generated significant levels of political struggle and violent conflict, in which previous forms of inequality were supplanted by new forms of inequality between classes, social groups, countries and regions.

Most importantly, perhaps, Polanyi's view is not determinist and teleological, as it allows for a range of outcomes and does not see history as an inevitable succession of 'stages', as in Hegelian and Marxist views. The strength of Polanyi's social-transformation approach is evident in its non-deterministic ability to understand the mechanisms underlying political change and conflict in modernising capitalist societies – not only in the 1930s but also in the more-recent context of 'neoliberal globalisation' (Stiglitz 2001) which has sparked powerful 'counter-movements'. From such a perspective, we could see a range of socio-political developments as manifestations of such counter-movements, from communism, socialism, and democratic uprisings such as the Arab Spring to 'anti-globalist' movements and protectionism together with xenophobic backlashes such as 'Brexit', the election of Donald Trump as US President, fascism and religious fundamentalism. Irrespective of whether the political responses which this discontent generates will solve some of these problems, whether they are successful in gaining political power or whether revolutionary or reformist movements are hijacked by political elites, they have all in common that they are born out of real outrage about perceived social injustice, inequality, alienation and exclusion.

As part of the economic and political dynamics that shaped the 'Great Transformation' of modern societies analysed by Polanyi, we can distinguish a number of other meta-trends that have transformed human societies over the past two centuries in somewhat universal and seemingly irreversible ways. For instance, demographic shifts and a growing influence of humanitarian values have accompanied the transformation of pre-modern peasant societies, which urbanised in the context of industrialisation, technological innovation and the rise of market economies. At the same time, drastic changes took place in people's relations towards work, family and the environment. The acknowledgement of the *general* nature of some transformation processes is neither a teleological statement about the historical inevitability or predestination of such change, nor a moral verdict about the inevitable or desirable course of history and the future of humanity. It is only an observation that such macro-level, generic transformations have objectively happened and are still ongoing.

That does not mean that social transformations cannot be reversed – history shows that some mega-trends may well be. For example, after the collapse of the Roman Empire, thriving and very well-connected cities rapidly depopulated and became isolated, highlighting a clear instance of urbanisation reversal (Hearder 1990). Furthermore, technological knowledge which was widespread in Roman times, such as advanced civil engineering or water management, was forgotten for many centuries until sewage was reintroduced much later – for instance, in late-nineteenth-century Britain (Abellán 2017). In the same way, achievements that we may

take for granted nowadays, such as the ability to cure and prevent infectious diseases could be challenged in the future through antibiotic resistance (see Llor and Bjerrum 2014) or the global spread of new viruses for which no cure or vaccination can be found. The global Covid-19 pandemic of 2020 illustrates the profound implications this could potentially have.

However, a genuine 'reversal' is only likely to happen as a result of *fundamental* and *simultaneous* shifts in the political, economic, technological, demographic and cultural foundations of societies. In other words: one revolution, one authoritarian power grab or one pandemic does not qualify as such as a systemic shock as long as it does not challenge the very foundations of modern societies. Theoretically, 'modernism' as we know it today can also collapse or morph into a totally different kind of social configuration in response to future, as yet unknown, social transformations. Such reversals or new transformations would require fundamental change or large exogenous shocks and are, therefore, difficult to conceptualise within the internal logic of the current working of societies.

Theorising social transformation requires the identification of general trends, while simultaneously accounting for the variation in their concrete manifestations over time and across different societies and communities. The challenge remains how to keep an eye out for variations and exceptions while retaining the ability to generalise. To address valid concerns that the uniqueness of social transformations at specific historical junctures prevents comparative analyses and, hence, generalisations, it is useful to make an analytical distinction between the *unique* and the *singular*. Johnston (1984) defined the unique as something which is peculiar because there is no other instance of it but whose peculiarity can be accounted for by a particular combination of general processes and individual responses. The singular, in contrast, is something that is entirely remarkable because no general statements can be made in reference to it. Writing from a geographical perspective, Johnston therefore called for the 'study of the unique characteristics of regions [or societies] that result from the interaction of general economic processes with individual decision-making agents acting in their cultural contexts' (Johnston 1984, 443).

This is a useful approach because most concrete experiences (of societies, communities and individuals) can be seen as socially specific manifestations of more general processes of change. Particular social settings, cultures and personal characteristics shape people's perceptions and agency in diverse and, indeed, unique ways but such uniqueness is always to be understood within contexts of more general processes of 'big change'. After all, only systematic theoretical and empirical research and comparison can 'help us make sense of social structures and processes that never recur in the same form, yet express common principles of causality' (Tilly 1984, as cited in Skeldon 1997, 13).

3.1 Defining and conceptualising social transformation

Social transformation refers to long-term societal shifts on a deep structural level. Understanding social change has been the focus of social-scientific investigation for centuries. Long before the 'founding fathers' of (Western) sociology – Weber, Durkheim and Marx – started to systematise knowledge about societal structures and change, thinkers such as the fourteenth-century North-African scholar Ibn Khaldoun analysed mechanisms around power, state formation and social change (Achcar 1999). Ibn Khaldoun's analysis showed that the rise and fall of imperial dynasties could be linked to cycles of interaction between moral, socio-economic, political and historical factors (Sonn 2010). More specifically, nomadic groups in the Saharan hinterland, who were characterised by a strong moral purpose and group solidarity, would defeat the sitting, corrupt, decadent and weakened dynasties. However, once in power, the strong ethnic-group solidarity eroded: '[Ibn Khaldoun] saw in it a continuous alternation

between kinship solidarity of the nomad and the diversification of the interests attendant on sedentary life. The process has its own logic' (Wolf 1982, 38).

Hence, from this perspective, history evolves in a circular movement of rise, flourishing, decadence and decline. This stands in contrast to views of history associated with modernisation theory, which instead describe the transition from one type of societal functioning (feudal or otherwise 'pre-modern') to another (modern-capitalist) – like a paradigm shift. Ibn Khaldoun's theory tried to explain the succession of dynasties *within* a certain type of society prevalent in the North Africa of his time – it does not describe or explain the transformation from one type of society into a completely different one. Similarly, interpretations of the rise and fall of feudal powers within pre-Europe or Asia, as well as theories on the mechanisms behind the rise and fall of European imperial-colonial powers (see Kennedy 1987), explain cyclical changes but do so in a context within which the overall mechanisms of power and functioning of societies and economies remain the same.

The term 'transformation' alludes to more-profound processes of structural change that lead to a society that is *fundamentally* different to its predecessor. Generally speaking, it grasps fundamental social changes whose magnitude differs from the small social changes which people experience on a day-to-day basis, the fortunes and misfortunes of towns and communities and even the rise and fall of dynasties and regimes that do not affect the overall structure of society. The concept of 'transformation' has previously been used to refer to radical changes in specific social spheres, such as in technology and the economy (Ayres 1990a, 1990b; Castles *et al*. 2011; Polanyi 2001[1957]). For Khondker and Schuerkens (2014), 'social transformation implies a fundamental change in society, which can be contrasted with social change viewed as gradual or incremental changes over a period of time' (p. 1). Partly drawing on earlier definitions of social transformation, particularly by Polanyi (1944), Castles (2010) and Portes (2010), we therefore define social transformation as a *fundamental change in the way that societies are organised and resources are distributed* that goes beyond the continual processes of cyclical and life-cycle-related social change that are always at work and that do not change deeper social structures and the overall functioning of societies.

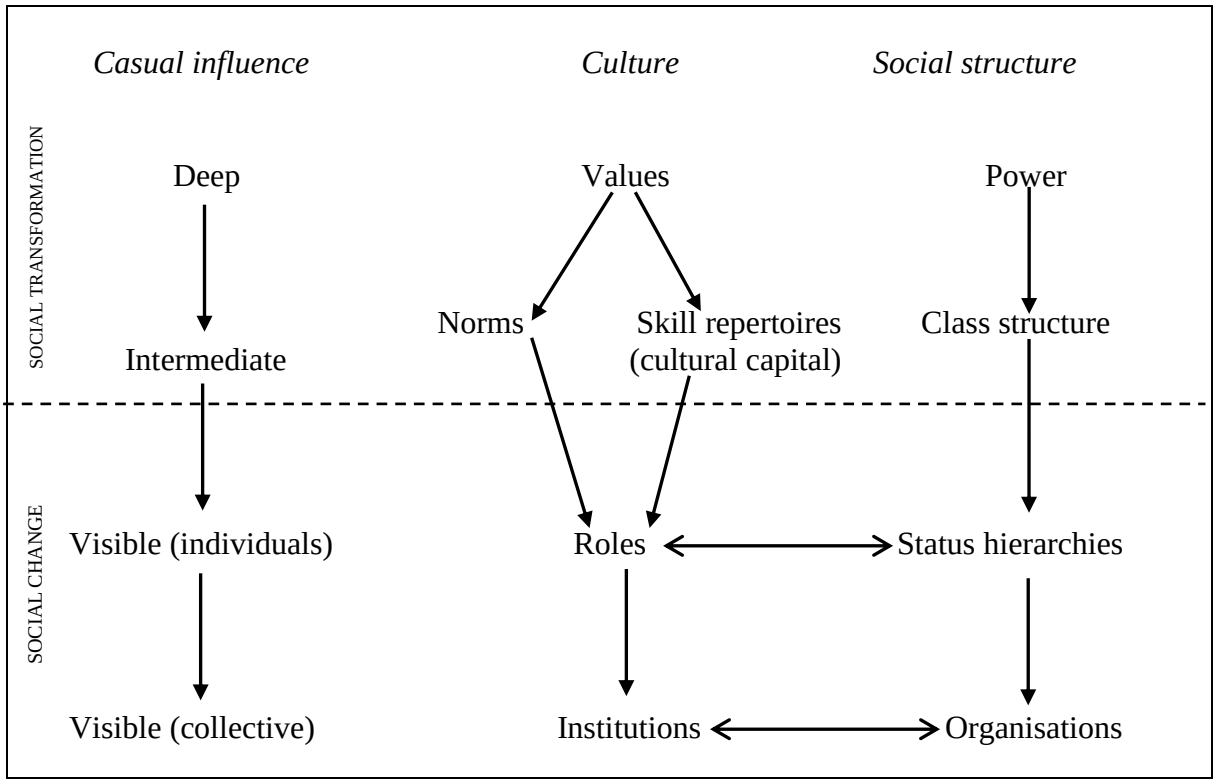
Social transformations thus reflect societal shifts on a deep structural level, a fundamental 'step-change' that reconfigures all existing social patterns. In this context, Portes (2010) argued that change can only be identified as 'fundamental' or 'deep' when it affects the core of society – that is, its value systems and power structures. Such fundamental changes are often not 'visible' or clearly manifested in daily life, compared to smaller changes in institutions and organisations, which may seem fundamental the moment they happen – particularly for people directly confronted with the consequences of it – but often appear rather superficial in hindsight.

To illustrate his point, Portes (2010) argues that, although the large-scale immigration to the US and Western Europe of the past half century may appear to have fundamentally transformed the 'sights and smells' cities, these are essentially rather superficial 'street-level' changes. Immigration has, in fact, barely changed the deeper political and economic structures of destination societies. Referring to the US, Portes argued that "The fundamental pillars of American society have remained unaltered. These include the legal/judicial complex, the educational system, the dominance of English, the basic values guiding social interaction, and, above all, the distribution of power arrangements and the class structure" (Portes 2010, 1548). He therefore questioned the popular idea that immigration 'remade the American mainstream' (see Alba and Nee 2003). For the same reasons, large-scale immigration has also left the fundamental pillars of European nations unaffected (Portes 2010).

The most visible forms of change are therefore not necessarily the most profound ones. Social change only counts as a transformation if it reflects deeper forms of change on the level of value systems and power structures (see Figure 1). More-visible forms of change at the level

of social roles, institutions, status hierarchies and organisations *can* reflect deeper forms of change but this is not necessarily the case. The deepest forms of change – as manifested in the core values and power structures – are difficult to grasp through the conventional forms of micro-level empirical research that have gained increasing dominance and popularity in past decades to the detriment of qualitative analyses of macro-level, whole-society change of power structures and ideologies.

Figure 1. Elements of social life and depth of social change



Source: Adapted from Portes (2010)

We could also apply this framework to the analysis of events. For instance, neither the 1973 Oil Shock, '9/11' nor the 2008 Financial Crisis and the ensuing Great Recession or the Covid-19 pandemic seem to have fundamentally changed the way economies and societies are organised. Although, at the very moment that they happened, they may have appeared to be life-changing, from a long-term perspective these events were not a manifestation of a fundamental social transformation. The wave of democratisation movements such as the 'Arab Spring,' on the other hand, do point to deeper changes in societies (such as increasing education, access to information and cultural change) that increase the desire amongst younger generations for social justice and more accountable and democratic modes of governance. But only history can give us a more definite answer on whether such social changes constitute fundamental transformation.

This paper builds upon these ideas by advancing a conceptual framework that enables a systematic analysis of social transformation, based on the following definitions:

(1) **Social change** refers to the micro- and meso-level, day-to-day and cyclical changes that occur all the time; they mostly pertain to issues such as lifecycle events or the fortunes or misfortunes of particular social groups, communities or political regimes.
(2) **Social transformation** refers to macro-level fundamental change in the deep structures

and organisation of society, affecting all dimensions of social life.

(3) **Events** can be either manifestations of deeper social transformations (such as revolutions resulting from deeper discontent built up over the pre-revolution period) or causes of transformation in themselves (particularly in the realm of ideas, religion and politics).

Although distinct as analytical categories, in practice social change and social transformation are mutually connected: fundamental changes might result from incremental, piecemeal, almost unnoticeable small changes that build significant 'momentum' until accumulated 'tensions' reach such a level that they precipitate a fundamental transformation. Individual factors such as the ideas, personality and charisma of particular political and religious leaders or the influence of social protest movements can play a key role in what may seem like a rather radical transformation of societies. However, apparently shock-wise, revolutionary political and economic shifts are often only possible because of the fertile ground created by preceding, often more incremental, cultural, technological or demographic changes.

The interplay between gradual changes and the agency, action and ideas of particular leaders and social groups can make social transformations appear sudden and unpredictable but this often ignores the underlying momentum that had already built up, providing the 'breeding ground' upon which relatively small events or the actions, ideas, speech and writing of particular individuals can unleash rather sudden and revolutionary change. For instance, Karl Marx could only become so influential because his analysis and critique of capitalist exploitation resonated with the lived experiences of the poor and oppressed. The same can be said for the extraordinary influence of particular prophets and religious leaders. Apart from their charisma, deeds and speech, their success can also be explained by a deeper discontent resulting from economic and social change and a deeply felt need for new value systems.

Table 1. The depth and pace of social change

		PACE OF CHANGE	
		Slow	**Rapid/sudden**
DEPTH OF CHANGE	**Visible/superficial**	Immigration	'Within-system' rise and fall of powers and regimes
	Fundamental/ transformative	Agrarian-industrial transformation	Political, cultural and religious revolutions

So, there is no direct relation between the depth (from superficial to fundamental) and the pace (from slow and largely imperceptible to sudden and visible 'shocks') of change. Table 1 shows how we can categorise social change according to the depth and pace of change. All combinations are possible. What appears as a transformative change at the moment it happens may signify or trigger no change at all, while other changes that happen imperceptibly may signify – or trigger – deep social transformations. For example, many revolutions eventually fail, signified by the return to power of the old order. The same can be said for independence movements, in which native elites have often taken over the place and possessions of colonists (e.g. Constantino and Constantino 1975). Whereas political change (the realm of power) often appears abrupt, it can often be seen as a manifestation of cultural change (the realm of ideas) that is generally a more gradual, incremental process and that eventually created the conditions for political change. At the same time, sometimes sudden shifts that appear at the time to be

radical transformations turn out, in the long run, to be somewhat continuous compared to previous social arrangements.

Prior conceptualisations of social transformations have remained cautious about associating social transformation with particular characteristics of change. Castles (2010) only implicitly implies that social change is continuous, thus slow in incrementing, while a transformation is a sudden step-change, while Portes (2010) addresses the degree of change, highlighting that social transformation has to affect the deep structures of society but not referring to a time dimension. Khondker and Schuerkens (2014) also do not directly address the pace of change. However, it is clear now that we should refrain from automatically associating superficial with slow or fundamental with rapid or sudden change. Indeed, between the two sides of the spectrum (gradual change vs fundamental shocks) we can find incremental changes that advance rapidly – such as the continuous improvements of technology – or fundamental changes that unfold more slowly – such as demographic transitions, which take several generations to materialise.

3.2 Operationalising: five dimensions of social life

While *defining* social transformation is not straightforward, *operationalising* the concept is an even bigger challenge. The central challenge is to create conceptual room for comparative analysis in order to understand the *complexity* of the social mechanisms underpinning social transformation while, at the same time, providing a sufficiently *limited* number of key analytical 'handles' allowing for systematic comparative empirical analysis. To identify a social transformation, we must be knowledgeable about social life, its structure and complexities, without losing sight of which changes are the most fundamental. Such an effort requires a clear definition of central concepts. As a first step, we need to define the social realm.

The 'social', in our view, pertains to everything concerning *human relations*. This implies that economic, political, cultural and technical changes all have a social dimension. For instance, in observing the power of market forces in transforming societies, Polanyi (1944) also referred to shifts in the political, cultural and technological spheres. One example we could give is machine production which, in premodern times, had been the domain of 'uncultured' artisans; it only gained importance and became a science in the industrial age. We can only understand social transformation if we study change across the different dimensions of social life simultaneously.

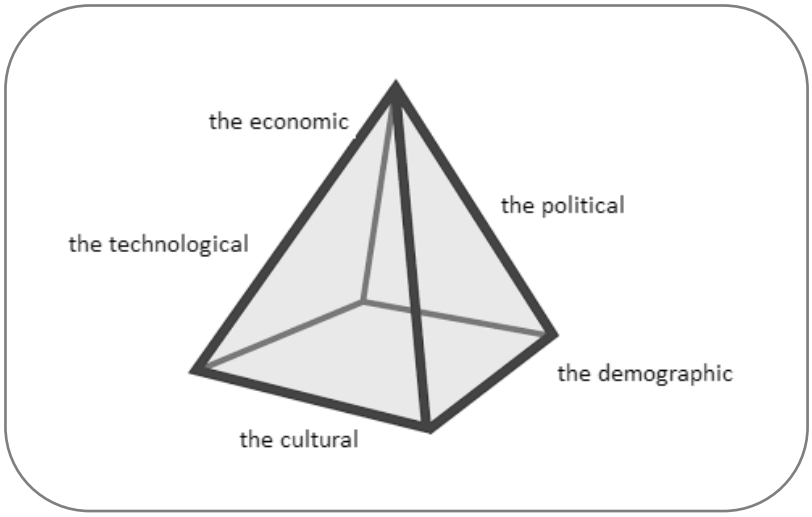
We distinguish five key interrelated dimensions that, together, constitute the 'social realm' and offer different vantage points from which to study meta-processes of social transformation:

- the ***political***, defined as the organised control over people;
- the ***economic***, defined as the accumulation and use of land, labour and capital in the production, distribution and consumption of goods and services;
- the ***technological***, defined as the application of knowledge through the deployment of procedures, skills and techniques;
- the ***demographic***, defined as the structure and spatial distribution of populations; and
- the ***cultural***, defined as the beliefs, values, norms and customs shared by groups of people.

To further illustrate this approach, it is useful to conceive of society as a subject that may be studied from five different angles. Thus, the cultural, the political, the economic, the technological and the demographic are different lenses through which we can study the *same* process of social transformation (see Figure 2). We have not distinguished a 'social' dimension because the 'social realm' *englobes* the cultural, political, economic, technological and

demographic dimensions of social change. This conceptualisation of society is akin to that of Polanyi (1944), who saw society not as distinct from but as encompassing the state and the economy. To distinguish a separate, sixth 'social dimension' is therefore analytically nonsensical and would reproduce the type of socially disembedded analysis that has done so much harm in the social sciences and prevented the advancement of general, non-disciplinary theories of social change.

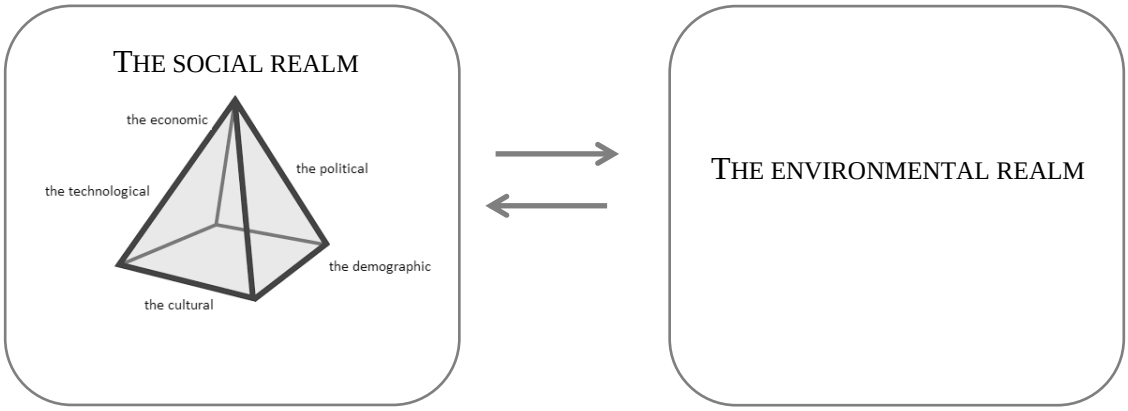
Figure 2. The five facets of the social realm



From this viewpoint, comprehensive analyses of a social transformation need to investigate how change in each dimension is interrelated and part of the same general process of social change. In some dimensions, such as the technological and demographic change may appear more incremental or easier to 'measure' (particularly through quantitative analysis), whereas change in other dimensions, particularly political, cultural and economic structures, tend to be empirically less tangible elements of social transformation. This highlights the need to combine various research methodologies when studying a social transformation.

To some degree, this choice of five dimensions is pragmatic and partly follows existing thematic and disciplinary divisions in the social sciences. However, we seek not to reproduce disciplinary divides but, rather, to integrate theoretical and empirical knowledge from across disciplines and thematic specialisation areas. From this perspective, it is desirable for sociologists and anthropologists to study the economic, for instance, and for economists to study the cultural and the political. The choice of five dimensions is also an effort to find a compromise between the conflicting goals of comprehensiveness (keeping an eye out for detail and nuance) and parsimony (the need to generalise). This conceptualisation is sufficiently multi-dimensional to capture the complexity of social transformation but limited enough to provide the basis for elaborating manageable methodologies for the systematic empirical study of social transformation processes.

Figure 3. The social and environmental realms



Conceivably, more dimensions could be added, particularly the environmental dimension. After all, human beings are in constant reciprocal interaction with the physical environment and political ecologists have, therefore, always questioned the artificial separation between the social and nature (see Blaikie and Brookfield 2015). However, the environmental realm should be conceived on the same conceptual level as the 'social realm' (see Figure 3). In other words, we cannot reduce the environmental to a sub-dimension of the social – as environmental permeates *all* dimensions of social life. In our conceptualisation, the social realm comprises everything pertaining to the *human relational sphere*, and the 'environmental realm' comprises everything pertaining to the *bio-physical environment* (for example, the climate, land, water and mineral resources, rural and urban infrastructures and the built environment). Notwithstanding the importance of interactions between the social and the environmental realms, which are the classical focus of geographical analyses, this paper focuses – for the purpose of brevity and analytical focus – on the social realm.

This social-transformation framework and its operationalisation into five sub-dimensions can be applied *universally* in the sense that it can, in principal, be used to study social change in any historical or geographical setting. Each dimension can be linked to one central meta-concept, which is relevant to the study of societies in every age and area of the world: the economic refers to *resources*, the technological to *tools*, the political to *power*, the cultural to *ideas* and the demographic to *population*. Social analysis then pertains to the study of change across these five dimensions in particular temporal and geographical settings. Together, these universal dimensions of social change form an analytical framework that can be used as a guide to study any form of social change (see columns A and B in Table 2). Once this framework is applied to the study of a concrete historical process of social transformation, we can identify *substantive* processes in the analysis (see columns C and D in Table 3). This concrete application implies the historic embedding (or 'historisation') of social analysis, examining the concrete ways in which historical processes of social transformation have manifested themselves.

Table 2. The social transformation framework and its five dimensions

Universal social dimension (A)	Central meta-concept (B)
Political *The organised control over people.*	**Power**
Economic *The accumulation and use of land, labour and capital in the production, distribution and consumption of goods and services.*	**Resources**
Technological *The application of knowledge through the deployment of procedures, skills and techniques.*	**Tools**
Demographic *The structure and spatial distribution of populations.*	**Population**
Cultural *Beliefs, values, norms and customs shared by groups of people.*	**Ideas**

As a warning against 'reification', it is important to emphasise that these five dimensions are *analytical* categories rather than empirical sub-realities that exist or can be observed independently from each other. All dimensions are intrinsically embedded in the same social reality. Change across the different dimensions overlaps and interlocks and follows no necessary hierarchy; the relative importance of the different social dimensions in triggering and driving social transformation can vary over time and across concrete social settings. However, the key insight is that change across the different dimensions is inter-related. This is important, because it is only in the interplay of change across the different dimensions that the 'deep change' characteristic of social transformation is manifested.

The meaning and implications of change in one social dimension depend on change across the entire social-transformation spectrum. The invention of the steam turbine provides a striking example of the need to look at different dimensions simultaneously in order to understand the nature and mechanisms underpinning social transformation. The steam turbine was already invented in Roman Egypt but remained largely an object of curiosity, as nobody saw its economic potential (McNeese 2000). When the steam engine was (re)invented in the late-eighteenth century, in the context of an already developing proto-industry and economic change in England, it became a central tool of economic growth, stimulating the building of a system of canals and railroads and the rise of the British textile industry which would fundamentally impact on the world economy (Ayres 1990a).

This exemplifies how deeply technology is embedded within society, and shows why technology is also part of the social realm. In the case of the steam engine, technological discoveries and innovation only had a transformational impact and did not 'die down'. This is because broader social conditions favoured the implementation of this innovation in allowing a massive increase in industrial and agrarian productivity as well as a drastic reduction in the costs and risks of transport in the broader context of a nascent capitalist economy and the rapid development of a world-englobing trade system. In a self-reinforcing cycle and as part of social transformation, fundamental changes within one dimension stimulate transitions in other areas of the social realm. We can therefore only speak of a social transformation if all dimensions of

social change are undergoing fundamental modifications, which then tend to reinforce each other.

3.3 Constellations and sequencing of dimensional change

The next step in operationalising social transformation and applying the perspective to concrete historical changes is to identify a set of substantive change processes – or 'constellations of factors' – that constitute the analytical core of a particular social transformation. A key analytical component is time, which we consider in three ways: a specific time in concrete history or *historical juncture* (Castles 2010), the *speed of change* within each dimension of the social realm and the *sequencing of change*, which can be defined as the timing of change within the dimensions of social change in relation to each other.

Historical juncture refers to the need to understand change as part of particular historical contingencies, which are in themselves unique and can influence the specific nature, timing and speed, whether gradual or shock-wise, of general social transformations. For example, women's entry into formal labour markets in Western countries has to be understood as a result of labour shortages created by the Second World War and strong labour demand in periods of rapid economic growth in post-WWII societies. Another example is the way in which some societies, such as the Gulf States, seem to be developing into service economies without transitioning through an 'industrial' phase. Attention to the historical juncture can guard against deterministic approaches, such as notions of progressive developmental stages, and can help us to understand the unique variations in the ways in which general transformations are concretely manifested.

The *speed of change* is also relevant to the analysis of social transformation across different dimensions. For instance, the speed and specific character of demographic transitions vary considerably across societies and do not always evolve in tandem or at the same speed as change in, for instance, the cultural or economic realms. For example, while in some wealthy countries, such as many Gulf States, the decline in birth rates has been slow, some middle-income countries, such as those in the Maghreb, have witnessed much sharper decreases in birth rates. In some societies, the fast expansion of education has been matched by rapidly increasing economic opportunities, whereas other countries see widening gaps between the aspirations of increasingly educated young generations and the job opportunities available to them.

Picking up the earlier example of women's labour-market participation, we see that the configuration of (i) the post-WWII scarcity of the labour force concurrent with (ii) the growth in demand for flexible and expandable labour facilitated the quick entry of women into the workforce. The rapid shift of economic structure and opportunities for women coincided with (iii) a much slower adjustment to the provision of public social services, such as child care, to support working women and (iv) an even slower cultural shift in gender roles in the family and at work – and in women's rights – a process that still has not reached full recognition of equal work for equal pay, even in the most socially progressive countries. This shows that social structures in specific sub-dimensions are more resistant to change than others, particularly when they affect core cultural values or power structures (Portes 2010).

In Marxist terms, the ideational superstructure seems more resistant to change than the 'material' base of society. When economic and technological change challenges core values and belief systems, this can provoke powerful, often violent, reactions or backlashes – such as through religious fundamentalism (which, perhaps paradoxically, is a typical modernist response to modernisation), fascism, xenophobia and nativism. This is different from but complementary to Polanyi's concept of the double movement, which explains the emergence of political counter-movements (whether in the guise of fascism, communism or democratic

social reform movements) out of the large inequalities, alienation and discontent created by *laissez-faire* economic policies (see above).

Lastly, the *sequencing of change* reveals important explanatory mechanisms. The different sequencing of events may be related to two situations: changes across political, economic, technological, demographic and cultural dimensions occur concurrently but evolve at different speeds, as we have just explained. Alternatively, dimensional transitions start at different times so that one happens before the other. For example, if land reform is implemented before a credit system is established to lend money to landless peasants for the purchase of land or before democratic safeguards are put in place against 'land grabbing', this can result in the rapid concentration of land by elites and the associated expropriation of the peasantry. This differential sequencing of change helps to explain the endurance of feudal landowning patterns – despite legal land reforms – in Southern Italy in the late 1800s (Foerster 1908) or the passing of haciendas owned by Spanish colonists and the church into the hands of native elites and American agribusinesses in the Philippines in the early-twentieth century (Constantino and Constantino 1975).

Rapid cultural change through the expansion of education and access to the media is likely to shift people's notions of the 'good life' away from agrarian-rural to modern-urban lifestyles, typically contributing to large-scale rural-to-urban migration. However, the extent to which this leads to international migration partly depends on the timing, character and speed of economic transitions, which will determine the extent to which people imagine being able to build a future in their own countries. From this perspective, emigration will be particularly high in stagnant, unreformed and unequal economies where rapid cultural change has led to increasing aspirations, people have some access to resources (as poverty tends to deprive people from the means to migrate), but economic reforms are lagging behind (Vezzoli 2015).

The remainder of this paper applies the social transformation framework to investigate 'modern transformation', a concept we use to capture the fundamental changes which human societies have undergone since the late-eighteenth century. We show how interrelated political, cultural, economic, technological and demographic changes are closely related and, taken together, constitute the modern transformation. This fundamental and complex process cannot be observed and measured in itself but only through its substantive sub-processes. As argued earlier, the way in which these general or 'universal' change processes are concretely manifested in specific historical and geographical contexts varies to a considerable extent, yet societies around the world have been deeply affected by it.

4. From the ashes of deconstruction: investigating the 'modern transformation'

In Section 2, we argued how the embeddedness of concepts and theories on 'development' and 'modernisation' in ideological positions have shaped the way in which we conceptualise people's agency and experiences of social change. In order to redress this bias, we need to focus on providing a structural account of what the fundamental changes associated with 'modern transformation' actually *are* in their concrete, partly planned, partly unplanned and highly diverse concrete geographical and historical manifestations. Simply rejecting the concepts of development or modernisation as such will not solve the problem. As Crush (1995) observed, in their haste to dismiss the concept of development, its critics generally fail to realise what they are throwing away in the first place. For instance, in describing his 'stages of economic growth', Rostow (1960) was definitely on to something, as many of the changes he spoke of have happened across several different societies.

Rejecting the ideological and political content or assumptions of such concepts and theories should not be a reason for or excuse to ignore the substantive insights such theories

can bring. As part of the postmodern condition, social scientists have been much better at 'deconstructing' concepts and theories than at 'reconstructing' by proposing theoretical frameworks. This shows the need to *rebuild* a conceptualisation of 'big change' from the ashes of deconstruction. Such an effort should have at its heart the critique of earlier theories of 'big change' but should also continue to aim to provide a conceptual tool with which to synthesise insights from a range of social-science disciplines and methodological schools.

This section applies our social-transformation framework to analyse how the 'modern transformation' has concretely manifested itself across societies in all its universal and unique characteristics. The central question guiding this effort is: *What characterises the 'modern transformation' and what have been the main forces of change?* Applying the social-transformation perspective, columns C and D in Table 3 summarise the main substantive processes, sub-processes and transitions associated with the 'modern transformation' that societies around the world have been concretely experiencing since the late-eighteenth century. Column C synthesises the key components of this modern transformation by identifying one central substantive change process for each of the five dimensions of social transformation: national state formation (the political dimension), the growth and spread of industrial capitalism (the economic dimension); mechanisation, standardisation and automation (the technological dimension); demographic transitions and urbanisation (the demographic dimension) and processes of rationalisation, individualisation and consumerism (the cultural dimension).

The key components of social transformation in Column C are so general and abstract that they are often difficult to grasp through empirical investigation. Column D provides an 'operationalisation' by giving more-concrete handles for comparative empirical analysis. Column D identifies five concrete sub-processes of substantive change (sometimes called 'transitions') per dimension, yielding a total of 25 sub-processes, which should be seen as handles to guide research rather than as a final and definite list. Future research can give reasons to alter this list, to identify new sub-dimensions or to change their definitions. We identified these sub-processes as they seem to cover a number of crucial and widely observable social processes which, together, constitute the 'modern transformation'.

Table 3. Application of the social transformation framework to the 'modern transformation'

Universal social dimension (A)	Central meta-concept (B)	Main substantive change process (C)	Important substantive sub-processes (D)
Political *The organised control over people*	**Power**	Nation-state formation	• Bureaucratisation and centralisation • Colonialism and warfare • Rise of modern nationalism • Democratisation • Expansion of state education
Economic *The accumulation and use of land, labour and capital in the production, distribution and consumption of goods and services*	**Resources**	The growth and spread of industrial capitalism	• Divisions of labour and class structure • Economic restructuring (agrarian>industrial>service sectors) • Marketisation and commodification • Globalisation (trade, finance, production) • Taxation and redistribution of resources
Technological *The application of knowledge through the deployment of procedures, skills and techniques*	**Tools**	Mechanisation, standardisation and automation	• Mechanisation of warfare and transport • Mechanisation of agriculture and manufacture ('industrial revolution') • Automation • Communication revolutions • The rise of modern medicine
Demographic *The structure and spatial distribution of populations*	**Population**	Demographic transitions	• Mortality decline • Fertility decline • Urbanisation (natural, migration) • Rural-to-urban migration (within and across borders) • Urbanisation of the rural space
Cultural *Beliefs, values, norms and customs shared by groups of people*	**Ideas**	Rationalisation, individualisation and consumerism	• Enlightenment and humanitarianism • Evolution of modern sciences • Secularisation of the public sphere • Changing ideas of the 'good life' • Emancipation of women and minorities

Viewed in this way, the 'modern transformation' comprises various fundamental structural changes such as the growth and spread of modern industrial capitalism, the emergence of the world system facilitated by European imperialism (see Wallerstein 1980), the formation of modern national states (see Tilly 1992) as well as the fundamental cultural, demographic and technological changes set in motion by the industrial revolution and concomitant urbanisation processes.

Previous 'civilisational' transformations – such as the agrarian revolution or the rise of urban-imperial civilisations – arose autonomously in multiple, unconnected regions across the world (Bellah and Joas 2012; McNeill and McNeill 2003). The revolutions usually associated with 'modernity,' however, occurred first in Western Europe. Although the historian Marshall Hodgson (1993) suggests that there were moments when Song China or Mughal India were close to experiencing equally disruptive transformations, the 'modern transformation' first 'broke' in Europe. By this time this happened, in the mid-eighteenth century, Europe was already embedded within a broader Afro-Eurasian world system, a constellation of civilisations linked in large part by the spread of Islam from the seventh century (Hodgson 1993) and subsequently connected to the 'New World' (the Americas and Oceania) through European colonialism and imperialism from the late-fifteenth century. Thus, while the 'core' of modernity was forged in Europe, the 'modern transformation' spread quickly across the world and developed in distinct forms, shaped by distinct social, political and cultural heritages (Eisenstadt *et al*. 2002).

Before exploring the 'modern transformation', it is important to acknowledge that these changes did not come 'out of the blue', but were preceded by long, continuous changes in the cultural, technological and political realms. In Europe, the modern transformation had its roots in earlier social, political and scientific shifts such as the Renaissance (starting in fourteenth-century Italy), the development of firearms (from the late fourteenth century, after gunpowder technology was imported from China), the invention of the printing press (1440), the establishment of global mercantilist naval empires by European powers (starting in fifteenth-century Portugal and Spain), the reformation (sixteenth century), the gradual formation of precursors of modern state bureaucracies and standing armies through the increasing scale of warfare over the sixteenth to eighteenth centuries (Tilly 1992) and processes of proto-industrialisation in England, Flanders, the Netherlands and Germany in the sixteenth and seventeenth centuries (Kriedte *et al*. 1981). These relatively slow-onset changes created the conditions or 'fertile ground' for a number of shifts usually associated with the industrial revolution. With the industrial revolution, a complex set of interrelated change processes unleashed a deep, accelerated and seemingly irreversible transformation of social life. The following sections highlight how the fundamental shifts in human life associated with the 'modern transformation' were manifested across the various dimensions of social life and how the various political, economic, technological, demographic and cultural changes have been closely interrelated and mutually reinforced each other, together forming a dense web of change.

4.1 The political dimension: national state formation

The political dimension of social transformation concerns the organised control over people within a given territory, using power as a lens through which to look at society. While this is not the right place to delve into the vast field of power theories, it is crucial to highlight that power is always relational – it does not exist 'of itself'; as it pertains to relations between individuals, institutions or groups, power is inherently social in nature. Thus, politics (the state) is embedded in society in the same way as Polanyi (2001[1957]) argued that the economy (or the market) is embedded in society. The state-in-society approach developed by Migdal formalises this understanding of the state (Migdal 1988, 2001; Migdal and Schlichte 2005). *National state formation* is the core political process associated with the modern transformation, within which we can distinguish five sub-processes (see column D in Table 3).

The first sub-process is the emergence and consolidation of a central bureaucracy to perform the fundamental tasks of a modern national state – principally taxation and army

conscription. The classical definition of the state by Weber (2009 [1919], 78) – 'a state is a human community that (successfully) claims the monopoly of the legitimate use of physical force within a given territory' – emphasises the key role played by the bureaucratic machinery in national state formation. The creation of institutions such as statistical bureaux, tax offices, standing armies and central banks, as well as of tools such as identification documents, passports and censuses has drastically increased the control which states can exert over populations, labour and capital. As we will see, the establishment of state bureaucracies and the associated increased power to collect taxes has shaped transformations in other social realms, such as economic restructuring, the establishment and introduction of national education systems and the establishment of modern welfare states.

The second political sub-process is the essential role played by warfare in consolidating central state power and supplementing or replacing pre-existing power structures, while modern colonialism 'exported' the European state model and centralised bureaucratic systems to other world regions. This process spurred globalisation in the form of the increasingly long-distance nature of human and trade relations. Tilly's famous argument that 'war made the state, and the state made war' (Tilly 1975, 42) summarises this intimate link between war and state formation. The link between war and changes in power structures is threefold:

(i) the increasing scale of warfare (stimulated by technological advancements in weaponry) forced states to increase their capacity to mobilise populations and military and economic resources, which enabled the creation of new institutions to generate state income (including financial instruments such as government bonds) and the increasing size of bureaucracies;
(ii) in return for increasing demand on their populations in terms of military service and taxation, states had to make concessions to their citizens, which can explain the rise of welfare states and demands for more accountable, transparent and democratic modes of governance (see Tilly 1992); and, finally,
(iii) warfare encouraged state consolidation by creating consensus among competing political elites at home against one major external threat.

Third, the appearance of modern nationalism has crucially contributed to the rise of modern states as a new socially cohesive force. The crafting of powerful myths around the origins and common identity of nations and the elaboration of a citizenship system strongly tied to a unitary understanding of the nation have been key in the consolidation of the 'imagined communities' that nations are (Anderson 1983). Through its ability to connect people over increasingly large territories controlled by modern states, modern nationalism has been a particularly unifying force underlying state formation, enabling the replacement or supplement of traditional community bonds. As Geertz (1980) highlighted, the theatrical element of the state is crucial to tie together cultural, economic and political dimensions of life, as national master narratives, rituals and norms provide the 'glue' that guarantees people's adherence to the state as a legitimate power institution and thus its (economic and demographic) survival. The rise of modern nationalism and the codification and spread of national languages were encouraged through the circulation of bureaucrats and teachers across the national territory, the mixing of populations from across national territories through military conscription and media such as the printing press and, later, radio and television.

Fourthly, national state formation over the past two centuries has coincided with processes of democratisation and the gradual emergence and increasing dominance of human rights ideologies. While this might seem like wishful or naïve thinking given the persistence and frequent resurgences of authoritarianism across the globe, the long-term trend seems to be in this direction. The contestation of absolute power and religious authorities started with the

Enlightenment and continued with the growing power of the public sphere and 'civil society' over recent centuries. This process has fundamentally reshaped the way we approach the political today. Evans and Heller (2015) suggest that, while bureaucratic state capacities are still essential for maintaining political power over a territory and population, successful states, regardless of their formal political regimes, value democratic state–society relations and participation. Such participation can take various forms, such as through electoral systems, establishing associations, trade unions and more informal parts of 'civil society'. Although the rise of democratic ideologies has also provoked violent counter-reactions, for instance in the form of fascism, communism and modern religious fundamentalism, the number of democratic regimes has shown an increasing trend, particularly in the post-WWII period, although this trend has stagnated in recent years. However, more importantly, perhaps, as an indicator that this is a real change is the fact that almost all autocratic regimes try to legitimise themselves by upholding a democratic façade; organising elections thus shows the power of human rights and democratic ideologies.[4]

Lastly, the development and expansion of state education systems has been crucial for the consolidation of national state formation, given its function as a 'disciplining system' (Foucault 1975) that socialises people as citizens of a nation state and as modern workers for a national economy. This power/knowledge link is materialised mainly through state institutions such as schools, where the national language is spread, new norms and categories are established and ideas about national identity and social groups are internalised. The spread of formal education has also played an important facilitating role in the economic and cultural shifts associated with modern transformation – such as the transition from agricultural to industrial economies and ideas of the good life shifting more towards urban and consumerist lifestyles.

4.2 The economic dimension: the growth and spread of industrial capitalism

The economic dimension of social transformations refers to the accumulation and use of land, labour and capital in the production, distribution and consumption of goods and services. The *growth and spread of industrial capitalism* is the central substantive economic process associated with the modern transformation. While the seeds of later industrial expansion were already sown between the fifteenth and eighteenth centuries within the context of mercantilism and European proto-industrialisation, technological revolutions (particularly the invention of the steam and combustion engines), earlier processes of nation-state formation, the exploitation of slave and indentured labour and the creation of new export markets through colonialism would all raise the capital and create the conditions for fundamental economic transformation processes. Starting in the countries bordering the North Sea and later spreading throughout the rest of the world, this transformation entailed the transition from agrarian economies – largely based on self-sufficiency and the (often coerced) transfer of surplus production by feudal political hierarchies – to industrial, highly monetised economic systems based on specialisation, production for the market and the reinvestment of profits into production so as to further increase output and efficiency, in a never-ending quest for profit and income maximisation. The growth and spread of industrial capitalism consisted of five main sub-processes.

First, higher productivity was facilitated by an *increasing division of labour* in individual occupations and the *specialisation* of enterprises, regions and societies in particular forms of production. In agriculture, market economies replaced self-sufficiency. The

[4] A case in point is that authoritarian regimes, in particular, seem eager to include notions of democracy in country names, such as the German Democratic Republic (DDR), the People's Republic of Korea (PRC) or the Democratic Republic of Congo (DRC).

mechanisation of ploughing, sowing, harvesting and irrigation, the invention and spread of fertilisers, pesticides and high-yielding crop varieties facilitated a major increase in productivity and scales of production, while less and less labour was needed in modern farming and cash-cropping. Similarly, in industry and services, an increasing specialisation of production and occupations boosted productivity, while the comparative advantages of production, increasing trade and economics of scale encouraged the development of regional and country-specific economic niches. This increased the *structural complexity* of ever-more-segmented labour markets in modernising societies as well as the formation of new class structures, mainly dividing capitalists and the working classes. This large-scale accumulation of wealth was only possible because modern states and legal systems could effectively guarantee private ownership – often to the benefit of landed elites who had the power and wealth to appropriate land and to the detriment of the peasantry, who often lost the land they had tilled for generations through indebtedness, foreclosure or outright expropriation.

The second feature of the economic dimension, closely linked to the first, has been a fundamental process of economic restructuring, with the steadily decreasing importance of agriculture in terms of both national income and employment. The shift away from agriculture is driven by decreasing employment opportunities, demographic transitions and the growing economic importance of industries and services. This process of de-agriculturisation of national economies started in nineteenth-century Europe and has now affected all regions in the world. While official national-development strategies have often advocated agricultural development, the introduction of production-increasing techniques tend to decrease the demand for agricultural labour, thereby further accelerating the shift from agrarian to industrial and service sectors. Although modern economies vary in their agriculture-industry-service structure, the economic shift away from agrarian societies is happening all over the world as a seemingly inevitable economic feature of the modern transformation.

The third significant sub-process is the marketisation and commodification of goods, services and people. Alongside the state-supported introduction of national currencies, the demise of self-sufficiency increased the necessity for money for the purpose of trade. This encouraged the widespread monetisation of economic life. Commodification entailed the transformation of goods, services, ideas and people into objects of trade which could be bought and sold at markets. This includes the move away from feudal labour relations and various forms of bonded labour and towards wage labour. In early modern times, the system of chattel slavery had turned African people into commodities which could be sold to American plantation owners. Their exploitation on plantations produced great wealth which became part of an internationally integrated agricultural, manufacturing and trade system (Blackburn 1988; Fox-Genovese and Genovese 1983). Over the course of the nineteenth century, this system would eventually be replaced by 'free' wage labour provided by native and migrant workers, which under conditions of capitalist economies was often seen as a more efficient form of labour exploitation. Through the twentieth century, the increasing role of governments and national banks in monetary stabilisation and the increasing access to banking services across populations would further boost this process of marketisation and commodification. Although this is a general process, international trade has fluctuated over the years in concordance with the varying strength of nationalism and protectionism, while states have differed substantially with regards to the degree to which labour is formalised and workers are protected against exploitation.

The growth of industrial capitalism and the concomitant commodification and monetisation of production is linked to *globalisation*, defined as the 'widening, deepening and speeding up of worldwide interconnectedness in all aspects of contemporary social life' (Held *et al*. 1999, 2). From the fifteenth century, European colonialism laid the foundation for the modern world system (Wallerstein 1980) but it was the advent of innovations such as the

railway, the steamship and the telegraph that enabled the acceleration of international trade over the second half of the nineteenth century – the first era of globalisation. While nationalism, protectionism and warfare would decrease trade over the first half of the twentieth century, the 1945–1973 period marked the second era of globalisation of trade and finance, marked by state-led development ideologies. The period between 1973 and 1989 saw global economic restructuring and the emergence of a new international division of labour, marked by the relocation of industrial production to low-wage countries. The 1989 fall of the Berlin Wall and the subsequent collapse of communist regimes marked the start of the third era of 'neoliberal' globalisation, characterised by economic deregulation and the accelerated globalisation of trade and finance. Despite significant variations and fluctuations in the level of protectionism and state involvement, the long-term meta-trend towards globalisation – driven by political and technological processes – has made economic systems across the world increasingly connected and interdependent.

A final key dimension of modern economic transformation pertains to the redistribution of wealth and opportunities through the introduction of progressive taxation policies, social policies, pension and welfare systems, the establishment of state-subsidised education, health care and other services as well as the general growth of government bureaucracies. Although the degree to which this has happened varies markedly across societies, which partly reflects political ideologies, the relative size of governments in terms of total national income massively increased over the nineteenth and twentieth centuries and is higher than 30 per cent in almost all Western countries.[5] Although, as part of neoliberal ideologies, since the 1970s many politicians have advocated less government interference in economic processes, most people and politicians nowadays would expect the state to provide some form of income distribution and social protection, which reflects the growing influence of humanitarian and egalitarian ideas and principles. The redistribution of resources within societies and the growth of the modern welfare state illustrate the close connections between processes of political and economic change.

4.3 The technological dimension: mechanisation, standardisation and automation

The technological dimension of social transformation refers to *the application of knowledge through the deployment of procedures, skills and techniques*. The associated central meta-concept is *tools*, both in their material form – such a machines, computers, metals – and in their ideational-abstract form – as in the guidelines, procedures, manuals and records of knowledge that are essential in the organisation of increasingly complex economic systems and bureaucracies. For example, the introduction of time associated with factory production was a new concept for factory workers which had to be learned, along with standard skills and the ability to follow orders (Mokyr 2001a). The modern transformation has been marked by an increasing reliance on new materials, machines and energy sources, to replace human and animal labour with machine labour, as well as the reliance on new knowledge for experimentation, invention and innovation through the adoption of breakthrough ideas for the creation of new tools. Increasingly wide-reaching forms of communications have allowed the transfer of all types of knowledge, information and ideas. This shows the importance of going beyond narrow material definitions of technology and the need to embrace a perspective that supersedes scientific innovations in the 'hardware' of societies by seeing technology change as including all inventions of tools and procedures – including money, taxation, voting and legal

[5] For instance, according to OECD data, total government spending in 2015 as a share of GDP varied from 25 per cent in Chili, 38 per cent in the US, 39 per cent in Japan,42 per cent in the UK to 57 per cent in France.

systems, weaponry – that can be used for work and production, statecraft, the arts and ceremonial purposes (Ayres 1996; Ogburn 1936).

The first sub-process within the technological dimension is the *mechanisation of warfare and transport.* A major force propelling technological advancements has been warfare, pointing to the needs of early nation-states to defend or extend their territory: in this category we find the improvement of weaponry through the mechanical deployment of gunpowder (originally a Chinese invention) as well as more advanced technologies such as the radar, the sonar, the jet engine, the missile and, ultimately, the atom bomb. This increased the scale of warfare and explained the demise of cities and small states and their consolidation into large political units (see Tilly1992). Warfare boosted investment in research and development and eventually also the modification and use of these new products for civil purposes, which were marketed to the general public. Concurrently, transport was essential both to move troops and to secure territories and resources across the globe. Transport, along with improved communications, was linked to the centralisation of the state (Ogburn 1938) and allowed improved connections from the periphery to the centre as well as giving the centres of power the ability to control frontier areas more easily. The establishment of national railroad networks during the nineteenth century played a key role in unifying and integrating nations and economies, while the rapid replacement of sailboats by trans-oceanic steamships from 1870 boosted world trade. Further innovations in terrestrial transport such as the tram, the bicycle and the automobile; and the paving of roads also made transport more efficient (Ayres 1990a; 1990b) and further expanded power of the central state and the efficiency and reach of bureaucratic apparatuses and therefore facilitated processes of national state formation.

The second sub-process within the technological dimension is the *mechanisation of agriculture and manufacture*, which describes the process of replacing human and animal labour with machinery. This process gathered momentum over several periods from the mid-18th century onwards (see Ayres 1990a, 1990b), as labour originally carried out by hand, or with the assistance of animals and simple tools, gave way to machines and mechanical systems that dramatically increased the power and productivity of economic systems. Mechanisation relied upon discoveries of new energy sources, particularly the harnessing of fossil fuels. Because mechanisation encouraged large scale production, it also stimulated processes of urbanisation, as economic systems concentrated in urban areas for reasons of efficiency. Between 1860 and 1900 period, technological innovation was centred around the saving of energy and the increase of productivity of labour, while gas and light were made available to lengthen daylight and increase productivity (Ayres 1990a, 1990b).

Intimately associated with mechanisation is the third sub-process of technological change, the drive to *automation*, or the minimization of human involvement in technological processes in agriculture, industry and services. While mechanisation refers to the replacement of human labour by machines, automation refers to the integration of machines into a self-governing system (Groover 2018 as cited in Janssen et al 2019, 99). The social consequences of automation remain contested, because of the degree to which it revolutionizes all that it touches. In industry, automation has simultaneously reduced demands for human workers and dramatically expanded what workers can accomplish. In transport, automation has made once impossible dreams, like landing on the moon, possible. Within the home, the emergence of increasingly sophisticated household appliances such as washing machines, vacuum cleaners and dishwashers has lessened the demands of 'housework' and contributed to the reshaping of gender relations. The relationship between man and machine is age-old, but the power of machines to revolutionize social life appears to have increased dramatically in recent centuries.

Fourth, from the first printing press to today's instantaneous global connectivity through the internet, *communication revolutions* have been at the core of technological change. Technological improvement is dependent on the number of tools already available (Ayres

1996). Thus, the ability to communicate technical knowledge on old and new tools enabled innovators to envision new possible combinations of knowledge, hence stimulating further innovations. In this process, most means of communications have taken a leap forward from postal services to the telegraph, telephone, radio, television and internet and various forms of wireless mobile connections. Innovations have rapidly multiplied, making it possible to communicate with all areas of the world, manage businesses remotely, transfer knowledge and capital seamlessly and engender new ideas that stretch our imagination into the realm of science fiction (e.g. holograms). Devezas (1997) argued that the telecommunication advancements in IT, social media and digital services that have developed since the 1990s would make our society unrecognisable to people who lived 100 years ago. The communication revolution highlights the most fundamental, seemingly irreversible dimensions of globalisation processes.

The fifth sub-process in the technological dimension of social transformation has been the *rise of modern medicine*. Over the nineteenth century, this was stimulated by scientific discoveries – particularly in microbiology – about the role of bacteria and viruses in spreading diseases, as well as methods of preventing contagion through hygiene and sanitation, pasteurisation (of milk and wine) as well as immunisation. From the mid-twentieth century, the discovery of antibiotics and blood transfusion, together with rapid developments in anaesthetics, surgery, transplantation and radiography, further boosted life expectancy. While the rise of modern medicine primarily reflects a technical-scientific revolution, it was stimulated by fundamental changes in the cultural, political and economics realms of social transformation. For instance, for the first time, German philosophical thought conceived of the organism in interaction with nature, which opened the way for the concept of 'disease' – and quantitative methods to assess disease, such through the use of a thermometer to measure the level of fever (Tsouyopoulos 1984).

The development of antibiotics in the first half of the twentieth century was further stimulated by wartime needs. Medical advances improved the treatment of diseases, made surgery increasingly safe and effective and gave rise to a large health-care industry (Ayres 1990a). To illustrate the earlier argument that changes across social transformation dimensions are interdependent, it is important to note that the development of medicinal breakthroughs such as the smallpox vaccine and penicillin often reflected quite accidental discoveries but ones which were picked up as part of a more general scientific spirit and the political and economic interests that favoured the implementation of such discoveries. In fact, the development of the health-care industry was only accelerated when public interest increased and governments invested in it (Ayres 1990a; 1990b). While the rise of modern medicine was stimulated by political and economic forces, it enabled and stimulated demographic transitions through falling death rates. Birth rates followed suit later. It would also further encourage urbanisation, as modern medicine drastically reduced the health-care risks of high population densities.

As the examples of medicine exemplified, technological revolutions only happen if political and economic circumstances are favourable to such change. Not all technological innovations have a social impact (Devezas 1997). Initial scientific findings must go through several steps to enable their eventual application and society-wide diffusion (Brewer 1973; Bright 1968, cited in Devezas 1997). If societies do not see the value of the application of discoveries, such diffusion will generally not happen. The technological advancements of the nineteenth century cannot be understood without the important institutional support provided by the wide range of institutions that have gathered and disseminated scientific knowledge since the Enlightenment – such as the research and development departments set up in Germany and Belgium (Mokyr 2001b). Nonetheless, several major obstacles have to be overcome and technological innovations– including railroads, the telegraph, contraceptives, satellite television and the internet – are often met with resistance by cultural, religious and political forces, who may see them as threats to the social *status quo*. For example, the Catholic

Church has had a complex relationship with scientific discovery, seeing it as a challenge to religious codes of conduct, dogmas and authority. Ultimately, technology changed the Catholic Church but not without initial strong resistance and oppression.

4.4 The demographic dimension: demographic transitions and urbanisation

The modern transformation has had profound implications for the structure and geographical distribution of populations. *Demographic transitions* and *urbanisation* are the central demographic change processes associated with the modern transformation. These have been driven by changes in other, particularly technological and economic, domains of social transformation and have stimulated further change, particularly in the cultural and political domains. These transitions consist of five main components.

First, the rise of modern medicine as well as improvements in hygiene and nutrition contributed in the past, as much as today, to a rapid fall in *mortality rates*. As birth rates tend to decrease only later, populations initially experience increasing gaps between births and deaths, leading to rapid population growth in the early phases of their demographic transition. *Second,* at some level of income and education, *birth rates* start to fall as well. The main reason for the delayed nature of birth-rate decline is that, while mortality decline is a quite direct response to 'technological' intervention and improved nutrition, fertility is determined, to a much greater degree, by cultural factors. However, eventually factors such as increased education, the formal labour participation of women, the increased cost of education and the diminished need for children as an agrarian labour force, all aided by the rapid spread of contraception, caused fertility rates to drop rapidly, leading to the ageing of societies.

This demographic transition has shown considerable diversity in different historical and geographical settings (Hirschman 1994). Contemporary developing countries tend to experience much faster demographic transitions compared to earlier transitions in Northern Europe (Kirk 1996). Moreover, the level at which fertility rates stabilise varies significantly across societies – with many South- and East-European and East-Asian countries having below-replacement-level rates, while the Scandinavian countries, France and the US have comparatively higher fertility rates. Nevertheless, the overall pattern of demographic transition has proved to be universal. Although 'no two countries have followed identical paths to transition…this diversity is not irreconcilable with the universality of the transition' (Kirk 1996, 386).

Third, demographic transitions run in parallel with processes of *urbanisation*. Urbanisation can be defined as the increasing concentration of economic activities and human populations in towns and cities. Since the agrarian revolution, urban areas have always been centres of innovation and have always attracted people for instrumental and economic as well as intrinsic, lifestyle-related reasons (see Fox 2012). What is new is the fast-growing and preponderant role of cities and urban lifestyles in the economic and cultural fabric of contemporary societies. Urbanisation is an intrinsic part of other change processes linked to the modern transformation, particularly technological change (mechanisation, infrastructure, communication) as well as the rise of capitalist economies involving a shift from agricultural (primary sector) production to (initially) manufacturing (secondary sector) and (subsequently) services (tertiary sector) as the main sources of economic growth and employment.

Economies of scale offer both efficiency and competition advantages to urban economies (Annez and Buckley 2009). The geographical concentration of firms and people stimulate innovation (see Lasuén 1973) through knowledge-sharing, which generally requires intense face-to-face contacts (Annez and Buckley 2009; Feldman and Florida 1994; Florida 2003; Jacobs 1984). Increasing divisions of labour, specialisation and higher levels of education have also encouraged urbanisation because both secondary and higher education and

specialised jobs are mostly pursued in urban centres. Despite clear variations in concrete experiences of urbanisation in terms of the speed and concentration of populations, urbanisation has been recognised as a universal and therefore inevitable feature of the modern transformation (see Skeldon 1977). Although it has is often been argued that contemporary urbanisation in developing countries (particularly in Asia and Latin America) occurs much faster than in nineteenth-century Europe, Annez and Buckley (2009) reviewed empirical evidence which seems to largely defy this idea. The share of the population living in urban areas had been steadily increasing in all societies around the world.

Fourth, urbanisation is closely associated to *rural-to-urban migration* within and across borders. Although the main source of urban growth is generally natural growth (Annez and Buckley 2009), rural-to-urban migration is an important second driver of urbanisation. It is impossible to understand the modern experience of migration without understanding urbanisation processes and *vice versa*. More generally, the modern transformation initially leads to an increase in mobility of all kinds (Skeldon 1977; Zelinsky 1971). While migration also affects urbanisation, it is an asymmetric relationship, as migration needs to be primarily understood as a sub-process of larger urbanisation trends. To a large extent, the restructuring of labour supply and demand will shape the geographical direction of migration and the skill composition of migrants. However, as a partly independent force of change, migration also tends reinforces the larger and more-powerful transformation processes of urbanisation that are already underway. For instance, out-migration to internal and international destinations can stimulate urbanisation in rural origin areas, either through urban-based remittances expenditure or the re-settlement of migrants' families in towns and cities (Berriane 1997; de Haas 2008; King and Skeldon 2010). Most rural-to-urban migration is directed towards cities within countries although, over time, rural migration may reach across borders as migrants access higher incomes, education and connections in international destinations (de Haas 2010; Zelinsky 1971). Both rural-to-urban and international migration are thus driven by the same forces of social transformation.

A fifth sub-process of these transitions is the *urbanisation of the rural space* in terms both of demographic and cultural patterns and of the economic basis of societies. According to theories of *polarisation reversal* (Richardson 1980) and *differential urbanisation* (Geyer 1996; Geyer and Kontuly 1993), urban growth proceeds according to a certain decentralising pattern of sequencing in which urban growth concentrates first in large, then in medium-sized and finally in smaller urban centres over the course of the modern transformation. A third component for urban growth over the course of modern transformations is therefore the *reclassification of rural settlements as urban* (Bloom *et al*. 2008). This goes along with the gradual de-agrarisation of rural livelihoods, with increasing sections of rural families having supplementary, non-agrarian incomes in the growing local industrial and service sectors or through remittances sent by migrants. In this process, rural market towns gradually lose their intimate relations with the rural agrarian hinterlands. The urbanisation of the rural space has a cultural dimension visible in a change in lifestyles, tastes and preferences, often together with increasing education and access to modern media. This allows also people living in small places to adopt 'urban attitudes'.

This challenges conventional conceptions of what 'rural' actually means and what is still 'rural' about many non-urban areas in wealthy societies, if the great majority of their populations no longer work in agriculture but commute to cities and have adopted 'modern' cultural values. These 'rural-urban transformations' show that urbanisation entails more than the 'growth of cities' and involves a whole complex of cultural and economic changes that affect 'urban' and 'rural' areas alike. Demographic transitions and urbanisation are thus intimately and reciprocally connected to cultural, economic and technological change. This

once again exemplifies the high degree to which fundamental shifts across the different domains of social transformation are interrelated to form a dense web of change.

4.5 The cultural dimension: rationalisation, individualisation and consumerism

Changes in the political, economic, demographic and technological realms of the modern transformation have been inextricably linked, both as cause and consequence, to fundamental cultural shifts. The cultural dimension refers to the beliefs, values, norms and customs shared by groups of people. The core cultural-change processes associated with the modern transformation can be summarised as *individualisation, rationalisation and the rise of consumerist ideologies*. These fundamental cultural shifts have manifested themselves in the following main sub-processes: the Enlightenment and humanitarianism, the secularisation of the public sphere, the evolution of modern sciences, the emancipation of women and ethnic minorities, and changing conceptions of the 'good life'. We cannot reduce the 'cultural' to a residue source of variation in the ways that social transformation is manifested across societies; nor can we portray change in the cultural 'superstructure' only as a consequence of change in the material, economic base of societies because cultural change has been a partly independent and extremely powerful driver of social transformation.

First, many of the cultural shifts associated with the modern transformation are associated with the Enlightenment, an intellectual movement in the mid-seventeenth and the eighteenth centuries that emphasised reason, logic and individualism over tradition. While Enlightenment thinking had its roots in earlier Renaissance movements, the Enlightenment is often credited with giving birth to a process of 'rationalisation' that would significantly affect all dimensions of the social realm. In our conceptualisation, *rationalisation* primarily refers to the public and scientific sphere, not to the emotional and affective ways in which people give meaning to their personal lives.[6] This rationalisation of the public sphere, a second sub-process of cultural change, is prominently manifested in the breakdown of traditional legitimations of the political order, particularly religious-centred legitimations (for instance, through secularisation) and with it the emergence of new kinds of public institutions, most often 'rational-legal authorities' (Eisenstadt *et al*. 2002; Weber 2009 [1919]). Rationalisation can be seen in the evolution of the modern sciences and the standardisation of everything from scientific methods to food production.

Besides the questioning of traditional sources of *power* (monarchs, priests, the nobility), rationalisation also implied the questioning of traditional sources of *knowledge* – through methods of critical scepticism, logical reasoning, experimentation and systematic empirical inquiry. These ideas had their antecedents in classic philosophy (Aristotle, in particular), Islamic mathematics and natural sciences (especially Ibn al-Haytham) but gained increasing dominance in the age of the Enlightenment, precipitating into the establishment of the 'scientific method' over the 19th and 20th centuries as the new orthodoxy. Since then, the *evolution of the modern sciences*, increasingly stimulated by government funding for higher education, research and development, has contributed to a radical increase in scientific knowledge and technology which, in its turn has enabled and fuelled major innovations in production, trade, services, transport, finance, medicine, communication and statecraft. Here,

[6] To be clear, our use of the concept of 'rationalisation' does not imply that traditions, values and emotions as motivators for behaviour are replaced with cool-headed cost-benefit decision-making grounded in reason and rationality. After all, there is ample evidence (e.g. Ariely 2009) that people, communities and institutions often behave 'irrationally'; more in general, the whole notion that rationality would mean the maximisation of individual 'utility' has been criticised on the grounds that this simply does not reflect how people behave, identify and value the world (Sen 2010).

again, we observe a strong interplay between the political, cultural and technological dimensions in bringing about the meta-process of social transformation.

Another related cultural shift is *individualisation*, which alludes to the increasing importance attributed to individual rights, identities and values in relation to the power of the collective. While people are profoundly social beings, the notion that individuals can be significant entities *separate* from the group is a distinctly modern one. The concept of private property is a prime representation of individualisation that is at the basis of the industrial revolution (Mokyr 2001b). Such ideas around individualisation are rooted in Renaissance thought and stood central in the Protestant revolt against the abuses and power of the Catholic Church and were also advocated by Enlightenment thinkers like Kant, Voltaire and Rousseau. The spread of new ideas was helped by printing-press technologies and, later, the emergence of newspapers.

Individualism does not necessarily entail a rejection of authority or the state as such but the notion that individuals have the right to question and criticise authority – and that authority should be based on merit and public consent rather than metaphysical justifications such as tradition or religion. In the same vein, the Reformation, started in 1517 by Martin Luther as a protest against the power abuses of the Catholic Church did not necessarily signify a demise of religiosity (often quite the contrary) but, rather, a rejection of traditional religious authority. It also spread the idea that the sources of religious knowledge (the Bible in particular) should be accessible for all individuals to read (in vernacular languages instead of in Latin) instead of being accessible only to religious authorities and that people have a direct personal relationship with the divine. Thus, individualisation is not incompatible with religiosity or spirituality. Reform movements within other religions such as Judaism and Islam could also be seen in the light of individuals' right to their own religiosity and away from blind acceptance of traditional sources of religious authority and claims to spiritual knowledge.

This individualisation would also facilitate the emergence of an industrial capitalism characterised by the demise of the bonded labour (whether through slavery, serfdom or another type of patron–client relations) which was typical of feudalism, in favour of the individual as the 'sovereign individual of capitalism' (Abercrombie *et al*. 2015), who was now 'free' to sell her or his labour in exchange for payment in cash. One could question the degree to which this represented real freedom, as many workers, particularly in low-income societies with weak welfare systems, often do not have much choice but to sell their labour in order to survive, particularly if they lack legal protection and face discrimination – which is often the case with migrants, ethnic minorities and women. However, apart from such important debates, nobody would contest that the shift from bonded to wage labour has been real. The rising influence of humanitarian values made it increasingly difficult to defend slavery and other forms of forced labour, while wage labour was *also* more convenient for industrial capitalist production. In this sense, the abolition of slavery over the nineteenth century signified a fundamental cultural as well as an economic shift. Since the nineteenth century, new ideas about labour have spread around the world, although they are indeed manifested in highly diverse ways.

One of the most important new ideas about labour is the increasing value and attention put on women's engagement in the labour market, an important part of the fourth sub-process of cultural change. *Shifting gender roles* and family organisation, whereby women's contributions to the household extend to include income-generating activities, has been an important *cultural*, not just an economic, shift in societies around the world. As Section 4.3 detailed, changing ideas about women's rights and responsibilities are intimately tied to a constellation of other social shifts: these may be a rapidly growing labour demand in industrialising countries, rising levels of education and the shifting aspirations of women for professional careers or a growing embrace of the notion that men and women are equal. Indeed, the United Nations Charter enshrined gender equality as a fundamental human right in 1945

and it remains a core 'development' goal of international organisation and cooperation. This signified a real change in the realm of ideas and ideologies, which also contributed to the emancipation of other discriminated groups (such as African Americans in the United States) and the increasing rights given to migrants (Bonjour 2011; de Haas *et al*. 2020).

A fifth fundamental cultural shift has consisted of *changing ideas about the 'good life'* which are associated with the *rise of consumerist ideologies* or a 'consumer culture' and the concomitant changes in tastes. This is partly related to the rapid growth in income and the amount of basic consumer goods available to the masses through processes of industrialisation. However, it also reflects a more profound shift at the level of the social imaginary. For example, as Polanyi (1944) originally argued, the expansion of the market economy, over other economic forms grounded in redistribution or reciprocity, inevitably leads to new 'economic mentalities', notably through an embrace of market 'rationality' and the profit motive. Similarly, Heilbroner argued that 'it may strike us as odd that the idea of gain is a relatively modern one […] The profit motive, we are constantly being told, is as old as man himself. But it is not. The profit motive as we know it is only as old as "modern man"' (1999, 24).

While there may have been individuals or particular social groups in history who were driven by the pursuit of material accumulation, the notion that every individual should constantly strive to better his or her material lot – and that this betterment is measured in large part through consumption – is conspicuously absent in most of humanity's history. The orientation of everyday aspirations towards personal gain and the accumulation of social status-enhancing consumer goods is thus 'as modern an invention as printing' (Heilbroner 1999, 24–25). In a similar vein, as Streeck (2012) argues in relation to contemporary capitalism, the ways in which people come to see themselves as consumers, what they perceive as 'needs' and how they experience satisfaction or discontent are rarely examined but are central explanatory factors in the study of economic systems. Without the spread of consumer culture, the constant invention of new perceived needs through advertising and the relative deprivation caused by social comparison, the capitalist system could not function. At the same time, as part of a self-reinforcing process, capitalism itself further stimulates consumer culture through the spread of goods around the world (the global spread of Coca Cola is probably the best example), advertising and people's continuous exposure to consumerist cultures through education, the media, tourism and migration.

To be clear, recognition of a growing 'consumer culture' in many societies around the world as a new ideology or even 'religion' does not imply that human beings are reduced to the '*homo economicus'* as the forces of modernity proceed. On the contrary, the rise of the 'profit-motive' says less about human nature than it does the commodification of social and economic life in many contemporary societies (Schewel 2019). Further, anthropologists have rightly pointed out that the spread of Western ideas, norms and values around the world has not uniformly led to a process of cultural convergence or homogenisation. On the contrary, we also see many cultural 'counter-movements' against the homogenizing and alienating forces of capitalism and global consumer culture, and, in most societies, globalisation appears to entail a process of cultural *hybridisation*, where the global and the local interact and 'creolise' (see Hannerz 1987; Robertson 1992). Recognising these variations, it is nevertheless important to acknowledge the powerful influence of consumeristic and individualistic ideals in shaping contemporary societies and ideological and religious systems across the globe (e.g. Appadurai 1996; Schuerkens 2004).

5. Conclusion

This paper has introduced social transformation as a conceptual framework through which to study fundamental changes in societies worldwide. Such changes vary in their geographical and historical manifestations but have general or 'universal' features that need to be studied empirically in order to understand the nature and causes of these changes in their complexity and variations across societies. Over the past few centuries, human societies have been going through fundamental changes often defined as 'modernisation'. Yet, despite huge advances in knowledge, social science has struggled to conceptualise the nature of these changes and to integrate fragmented insights into a single framework. Disciplinary fragmentation and methodological parochialism as well as a postmodern aversion to 'grand theory' have impeded theoretical synthesis. To overcome this impasse, this paper has advanced a social transformation framework as a meta-theoretical conceptual framework for studying 'big change'. This conceptualisation is an effort to contribute to social theory and to transcend the boundaries between the different social-science disciplines and methodologies by bringing fragmented insights and theories together under a single conceptual umbrella. This also creates conceptual space in which to move beyond teleological meta-narratives of 'grand theory' while avoiding the exceptionalism and lack of generalisation of postmodern deconstruction.

We defined social transformation as a *fundamental change in the way that societies are organised and resources are distributed*, and distinguished five interconnected dimensions of social change – the political, the economic, the technological, the demographic and the cultural – which together constitute the 'social realm'. These five dimensions are interrelated and overlapping and should therefore not be studied in isolation but simultaneously and in relation to each other. Studied simultaneously, these dimensions can capture 'big change' in its universal aspects while keeping an eye out for the diversity of its concrete manifestations. We argued that such an operationalisation is sufficiently detailed and multi-dimensional to capture the complexity of social transformation, while being parsimonious enough to provide the basis for a systematic and comprehensive empirical study and comparison of the social transformation processes occurring across different societies and in different periods. Nevertheless, we recognize that this is only a start, and indeed hope that the social transformation framework and its constituent elements as outlined in this paper will continue to evolve through continued application, verification and refinement.

We applied this framework to explore how, particularly since the late-eighteenth century, the 'modern transformation' has reshaped societies. The analysis showed how the interplay of the various economic, political, technological, cultural and demographic transitions have transformed social life around the globe in strikingly similar ways, notwithstanding the varied and unique ways in which this 'modern transformation' has concretely manifested itself across societies. The analysis showed how fundamental political, economic, technological, demographic and cultural change – particularly the emergence of industrial capitalism, modern nation-state formation, mechanisation, standardisation, automation, rationalisation, individualisation, demographic transitions and urbanisation – have been intimately and reciprocally interconnected and reinforced each other. The analysis highlighted that the five sub-dimensions of social change are analytical categories rather than separate empirical realities; similarly, the various sub-processes cut across these dimensions. For instance, urbanisation has cultural, economic and demographic dimensions and these cannot be understood in isolation from each other.

The analysis also highlighted that certain transformations seem to have certain general 'universal' features; with the switch from animal to mechanical power and a cascade of concomitant scientific and technological innovations, the subsequent revolutions in production, transport, warfare and infrastructure led to the emergence of capitalist modes of production that

required the increased role of states to organise and regulate economic, political and social life. These interlocking technological, economic and political changes were underpinned and facilitated by fundamental cultural and ideological shifts already set in motion during the age of the Enlightenment in the late-seventeenth and eighteenth centuries and would, in their turn, stimulate further cultural change linked to individualisation, the secularisation of the public sphere, the rise of modern medicine, the spread of consumerist ideologies, modern education, demographic transitions and urbanisation.

From this long-term, broader perspective, differences between contemporary societies, which may at first sight seem essential – such as between 'capitalist' and 'communist' models – may appear gradual once we realise that they are based on the same fundamental technological, economic, cultural and political foundations. For instance, the modern nation-state model is universally accepted, including ideas of democratic self-determination, as even autocratic regimes try to uphold a democratic facade, organise elections or claim to represent the will of the people. Likewise, urban-rural transformations and the concomitant rural-to-urban migration have proved to be universal – and therefore inevitable – processes occurring as part of the modern transformation.

However, by building on the important works of other scholars (Ayres 1990a, 1990b; Castles *et al*. 2011; Polanyi 2001[1957]), we sought to move beyond conventional concepts that have been used to understand global societal change – in particular 'development' and 'modernisation', which have been rightly criticised for their teleological, deterministic and reductionist nature. Despite our empirical focus on understanding the substantive processes associated with the 'modern transformation' over the last two centuries, the social transformation framework has the potential to allow researchers from a broad range of disciplines to study other periods of fundamental change in human history. This has important conceptual and methodological advantages.

First, the social transformation framework does not imply an 'end-point' towards which societies evolve – social change is everywhere and constant. For example, demographic and cultural shifts, as well as the creation, formation and dissolutions of states, is never 'finished'. Indeed, national state formation is not limited to Western Europe between the fifteenth and the mid-twentieth centuries, as is often portrayed in the literature. It is constantly ongoing all over the world (Tilly 1975), as states and nations constantly reform and reinvent themselves, as attested to by more recent developments such as Brexit, the splitting off of South Sudan, the annexation of Crimea by Russia or the Catalan independence movement. As such, social transformations encompass enduring and recurring processes of change and stagnation that happen across all societies and are not limited to the study of either Western or so-called 'developing countries'.

Second, the social transformation framework provides the tools to analyse social change processes in a particular place during a particular time period; it does not aim to describe 'stages' of development or progress, a core distinction from earlier modernization theories. This relates to a third advantage: the social transformation framework allows us to study societal changes in their full complexity, irrespective of the ideological notion of 'progress' or value judgements attached to the nature and socially differentiated impacts of general, global change. The social transformation concept we elaborated is a more non-deterministic analytical concept that not only describes and captures instances of linear change but can also account for a reversal of trends, their intensification or diffusion, discontinuities and continuities. In this sense, this social transformation framework creates the conceptual space to move beyond teleological perspectives that confound the idea of societal change with normative notions of progress and development.

Taken together, however, and from a long-term perspective, the shifts associated with the modern transformation seem as profound as the Neolithic or agrarian revolutions, which

triggered drastic increases in food production, allowed mankind to settle down and enabled the growth of town, cities and early state formation. The fundamental changes associated with the modern transformation are difficult to deny and have affected societies around the world in similar ways, despite variations in their concrete manifestations. However, the manifest *irreversibility* of social transformations that have historically happened – such as the modern transformation – does not presume that these transformations were *inevitable* or *predestined*. This is an important analytical distinction. Nevertheless, once set in motion, the social transformation associated with modernisation and capitalism has proved very difficult, if not impossible, to reverse in practice, although theoretically this would have been possible. Once the processes are set in motion and deep, fundamental and interlocking changes occur across all dimensions of social change and start to reinforce each other, social transformation becomes a virtually unstoppable force, despite variations and fluctuations, temporary setbacks and ups and downs.

It is therefore likely that contemporary 'developing' countries will continue to experience progressive urbanisation and falling fertility rates, that modern technologies will increase agrarian production whilst simultaneously decreasing agrarian employment and that improving access to education and modern media will continue to change notions of the 'good life' into those of more-individualistic and urban lifestyles, thereby boosting rural-to-urban and international out-migration. The modern transformation as a global meta-process of political, economic, technological, demographic, and cultural change has been shaping societies around the world and seems almost impossible to reverse, in the same vein as the agrarian revolution has not yet been reversed. Although these changes were not predestined and future transformations cannot be predicted, history may have a certain direction after all.

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