The Missing Dimensions of the Human Capabilities Approach: Collective and Productive

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Abstract

In this paper we identify two missing dimensions of the Human Capabilities Approach (HCA) – the collective and the productive – and in doing so we advance a 'productionist' perspective on development, centred around the idea of 'collective productive capabilities'. Bringing production back to the core of the development agenda calls for an integration of the HCA and those contributions which have focused their attention on the social, economic and institutional processes of learning, centred around productive organisations and systems. The lack of this focus on collective productive capabilities undermined the Millenium Development Goals Agenda and is still having negative impacts on the ways in which the Sustainable Development Goals Agenda is understood and implemented.

Keywords: Human Capabilities Approach; Collective Capabilities; Productive Capabilities; Development Policy; MDGs; SDGs.

1. Introduction

The human capabilities approach (henceforth HCA) pioneered by Amartya Sen has opened new horizons in economic research (Sen 1985, 1999). Above all, by emphasizing the importance of human capabilities, it has highlighted the role of human agency – not the empty agency of 'free choice' in Neoclassical economics, where the optimal choice is already determined by the given economic structure and given individual preferences, but a real agency based on values that individuals hold. This defies simple reduction of choice to 'the calculus of pleasure and pain' (Sen, 1977).

One of the primary conceptual innovations of the HCA was the redefinition of the concept of development. While, in the classical development theory, development was understood principally as a process of transforming the economy, starting from its production structure, the HCA proposed to define development primarily as a process of expanding people's individual freedoms and capabilities (Sen, 1999; Nussbaum 2000). From this standpoint, the objective of transforming the economy to increase per capita income is no more than a functional means to the end of human capabilities expansion. As a result, the question of *how* to increase income by transforming the material production structure of societies, which had been a central subject in classical development theory (Andreoni and Chang, 2017; Reinert, et al. 2016 for a review), has been relegated to an afterthought in the HCA research agenda. Instead, the HCA literature has devoted huge attention to the so-called 'list' debate, that is, (i) which capabilities ought to be considered most central to the expansion of human freedoms; and (ii) whether or not development theory should define these capabilities *a priori* (Comim et al. 2008 for a review).

In this paper, we identify two missing dimensions of the HCA – the collective and the productive – and in doing so we advance a 'productionist' perspective on development, centred around the idea of 'collective productive capabilities'. Productive capabilities are defined as human or technical abilities (to make goods and services) that are individually or collectively held, but always collectively constructed and deployed. Collective productive capabilities are defined as productive capabilities that cannot be held by individuals and can only be held by groups (e.g., firms, societies).

Bringing production back to the core of the development agenda calls for an integration of the HCA and those contributions which have focused their attention on the social, economic and institutional processes of learning, centred around productive organisations and institutions. We argue that this lack of focus on collective productive capabilities undermined the Millennium Development Goals Agenda, and is still having negative impacts on the ways in which the Sustainable Development Goals Agenda is understood and implemented.[1]

[1] We note that HCA also fails to give due consideration of other important dimensions of development that are beyond the scope of this paper, including common goods like the environment. Indeed, the lack

After this introduction, the paper is structured in three main sections, followed by a conclusion. In section 2 we argue that the HCA has not fully realized its potential by restricting its attention to a limited range of capabilities, that is, 'individual' human capabilities. This focus on individual capabilities is problematic for two main reasons. First, it is *collective capabilities* – realised through informal cooperation, organisations, and institutions – that largely determine human welfare. Second, there are a number of freedoms that are not reducible to individuals – e.g. equality – or are valuable only in the context of social collectives (section 2.2).

So far, as shown in section 2.2, the exclusive association of capabilities to individuals in Sen's work has been mainly criticized from social organisations and communities perspectives (Evans, 2002; Stewart, 2005; Tonon, 2018). While these critical perspectives have made important contributions by emphasizing the dimension of collective capabilities, we argue that these critiques themselves have missed two important aspects.

First, they have not realized how the individualistic perspective which the HCA is based on limits our understanding of the structural processes through which human beings discover 'the beings and doings they value' in society – both as individuals and as collectives. In fact, the discovery of beings and doings society value is itself a social and political process, which unfolds throughout the broader development process. In this process, production transformation plays both an 'instrumental' role – expanding the material wealth – but also a 'constitutive' role by changing institutions, ideology and power relationships. Understanding how production transformation affects the way in which societies discover 'beings and doings' that they come to value has important implication for the so-called 'list debate' (section 2.3).

Second, these critiques have not paid enough attention on a key set of collective capabilities, that is, *collective productive capabilities*. In section 3, we point to the collective nature of production and the ways in which the development of organisational capabilities within firms is critical in advancing broader collective capabilities in society. We also stress how 'learning in production' is central in the processes of individual and social learning, making the transformation of the sphere of production a critical step in the expansion of freedom in other spheres. In practical terms, this neglect of production has meant that the HCA has had very little interaction with a group of related 'unorthodox' economic theories that have great potential affinities with itself – the resource/capability theory of the firm, the development economics literatures on production and technological capabilities, and the literature on

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of contemplation of issues like ecosystemic constraints on production and the role of the environment in human wellbeing is a limitation, not only of the HCA, but of economics in general. Pressing environmental challenges, like climate change and toxic pollution (both essential for human survival and wellbeing) require profound changes in the sphere of production, which in turn require the acknowledgment of the importance of collective productive capabilities.

the national system of innovation. We establish a link between the HCA and these different, though complementary, streams of literature on capabilities.

The neglect of collective productive capabilities in the HCA is not merely a matter of theoretical or academic concern. On the contrary, as discussed in Section 4, it has had profound implications for development policy debates. It bears no mean responsibility for the rise of the combination of neoclassically-inspired economic policy measures and light-touch social policy that has become the standard 'development' policy package in recent decades, displacing structural transformation policies, like those deployed by the successful industrializers, ranging from 18th century Britain to the East Asian 'miracle' economies since the 1950s (for an extended discussion of these policies in historical perspective, see Chang, 2002; Andreoni and Chang, 2019; for a summary of these policies, see also Andreoni, Chang and Estevez, 2019).

2. Rethinking the Human Capability Approach: A critical appraisal

2.1 The Human Capability Approach

The HCA is a normative framework for the assessment of people's well-being as well as for the evaluation of different institutional and social arrangements. The conceptual development of this approach, as well as its application to a variety of fields from human development to welfare economics, has been the result of a long process of elaboration that can be found in Amartya Sen's writings (1985, 1992, 1999) and, more recently, in other scholars' contributions especially in the influential works of Martha Nussbaum (2000, 2006)[2].

The fundamental aim of the HCA is to define an informational base for the evaluation of individual's personal states that relies on 'constitutive elements of a person's being' (Sugden, 2008:5). According to Sen (1985), a person's actual state of being can be evaluated focusing on what this person is effectively capable of being and doing – i.e. his/her *capabilities*. Here, a crucial Aristotelian distinction is made: if one person's set of capabilities represents the potential set of achievements – i.e. the set of potential 'beings and doings' from which people should have the freedom to choose – the set of *functionings* is the set of 'beings and doings' that the same person has effectively realised. Functionings include various states of human existence: from very simple states of 'being' – both mental (being happy) and physical (being in good health) – and 'doing' (activities such as reading and moving) to more complex 'social functionings'

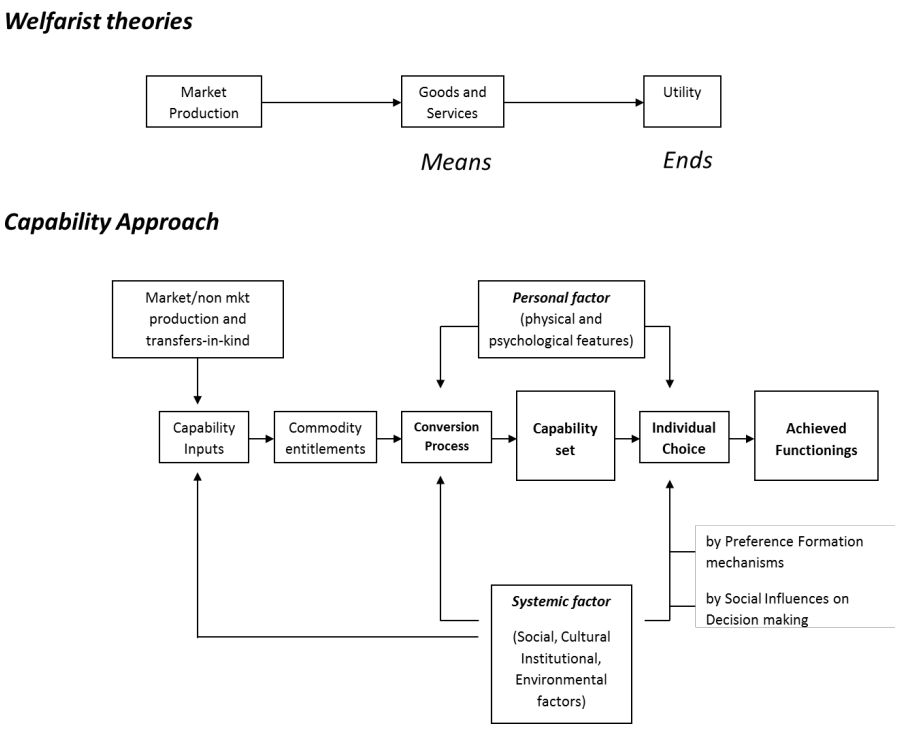
[2] The philosophical roots of the CA can be found in Aristotle's theory of 'political distribution' and the concept of *eudaimonia* – i.e. human flourishing – in classical authors like A.Smith and K.Marx and, finally, in the *Theory of Justice* (1971) by J.Rawls, although Sen and later Nussbaum have criticised Rawls's use of primary goods as conceptual tools for interpersonal welfare assessment.

such as the famous Smithian example of 'appearing in public without shame' (Sen 1992).

The HCA has been welcomed in the human development literature as a fundamental challenge to orthodox welfare economics – i.e. welfarist theories – in which people's well-being is assessed according to utility-based measures. These measures rely on a functional relationship linking individual utility to the consumption of goods and services. More fundamentally, within these welfarist theories, human beings are understood as *consumers* – individuals making consumption choices under given constraints — and economic growth (generally equated to development) is seen as the best way to increase individual consumption and, thus, individual utility.

These theories have been criticised by Sen from two perspectives: firstly, they do not capture non-utility information and rely on the exclusive consideration of mental states (desire fulfilment); secondly, in empirical analyses, these theories tend to reduce the concept of utility to income or commodity entitlements. Instead, in the HCA, commodities are valuable only because, according to their specific characteristics, they allow people to achieve valued 'beings' or 'doings'. For example, a book is valuable because it enables the functioning of learning and transmission of knowledge as well as allowing people to be literate (Jackson, 2005). Figure 1 provides a conceptual comparison of the welfarist theories and the HCA.

Figure 1: The relationships between means and ends of development



Source: Authors (adapted from Jackson 2005 and Robeyns 2005)

In the HCA, the 'conversion process' through which each commodity enables people to achieve valuable functionings, such as being healthy, working, and resting, depends on two factors (Robeyns 2005). Firstly, the *personal factor* refers to those physical and psychological characteristics from which the individual capacity to convert commodities' properties derives. This allows the CA to recognize human heterogeneity. Secondly, the *systemic factor* results from complex interactions among social, cultural, institutional and environmental features of each context in which individuals are embedded. For example, the same book can enable female children to be literate to different degrees in relation to the fact that the social and institutional context in which these children live is more or less favourable to female education.

Although the HCA acknowledges the relevance of these contextual factors – i.e. adaptive preferences, embeddedness in social structures, the impact of different social/institutional arrangements on capability – all these factors are not actually fully factored in the HCA framework, especially if we notice that 'properties' of individuals, that is their capabilities, remain the only evaluative space. Specifically, the HCA fails to recognize the existence of properties of social/institutional structures that are objects of value in themselves – i.e. intrinsically valuable systemic properties that cannot be reduced to individual properties. In particular, as stressed by Gore (1997:244-245): 'Sen's shift from utility to functionings and capability sets as the focal variables for evaluating individual well-being has gone in the right direction but stopped in the wrong place […] Judging well-being in terms of disembedded functionings is *equally* a highly limited way of seeing people'.

2.2 Beyond the individual redux: The collective capability dimension

Whether or not the HCA can be considered too individualistic has been debated by a number of scholars. The main critical argument proposed in the literature is that the HCA is based on a form of social individualism that leads to its ethical individualism. Although the HCA recognizes that 'individual actions are embedded in a social setting [and thus incorporates] social properties of individuals' (Deneulin and Stewart, 2001:5), it rejects the idea that the social/institutional structures of each human society are characterized by specific properties that cannot be reduced/decomposed in individual terms – that is, it adopts social individualism. For this reason, by accepting the idea that the only intrinsically valuable properties are those of individuals – i.e. ethical individualism – the HCA ends up considering individual freedoms and capabilities as the sole objects of evaluation.

Social individualism and the resulting ethical individualism have been challenged by Taylor (1995), with the consideration of the role that 'irreducibly social goods', such as language codes, cultural values and practices, relational structures, and moral norms, play in human development. In particular Taylor stresses how these elements are specific features of a social/institutional structure. They cannot be analysed in individual terms but should be treated as intrinsically valuable properties of a social/institutional context. These irreducibly social goods can be assimilated to those

'structures of living together' (SLT), which characterises each human community (intrinsic and irreducible value) and without which individual capabilities would never be able to develop (instrumental value)[3].

Over the last two decades or so, a number of theoretical efforts have been made towards the development of a concept of capability that refers to social/institutional structures, groups or collective entities. Three main theoretical concepts of capability beyond the individual redux have been proposed in the literature during the 2000s.

The idea of Collective Capabilities (CC) can be originally found in Evans (2002:56). In criticising Sen for being still a "good Manchester liberal", Evans draws attention to the fact that "my ability to choose the life I have reason to value often hangs on the possibility of my acting together with others who have reason to value similar things" and concludes that "individual capabilities depend on collective capabilities". Especially for poor people – i.e. those with a very limited capability set – the possibility of escaping from a situation of misery is strictly related to their capabilities of functioning together, for example through political movements, unions, or groups. This process results in two main outcomes: firstly, collective action may allow people to reshape their values, aspirations and preferences; secondly, CC may provide them with the instruments they need to achieve their shared objects. Finally, Evans (2002:56) adds that "some of the greatest intrinsic satisfaction in life arguably comes from social interaction with others who share our interests and values". Sen (2002:85) criticised Evans' proposal of including CC by arguing that the consideration of intrinsic satisfaction deriving from social interaction should lead to a concept of "socially dependent individual capabilities". However, according to Sen, those capabilities which "*depend* on social interactions" cannot be defined as 'collective' because they are owned by people; only those capabilities that can be owned and exercised in the form of a collective action by collectives are, according to Sen, truly CC. Developing Evans's critique of Sen further, Ibrahim (2006:404) develops the idea of CC and defines them as "the newly generated capabilities attained by virtue of [individuals'] engagement in a collective action or their membership in a social network that helps them achieve the lives they value".

The concept of Group Capabilities (GC) was proposed in Stewart (2005), where the crucial role played by groups with regard to problems of conflict and poverty eradication is analysed. Individuals have multiple affiliations. They are members of different groups because groups "are functional – instrumental to some wider purposes" but also because "membership confers benefits […] that go beyond the stated or original purpose of the group" (Stewart, 2005:187). Specifically, Stewart focuses on three ways in which groups affect their members' well-being. Firstly, membership may directly benefit persons by increasing their self-esteem and may affect their well-being as far as members start to identify themselves with the functioning of their group. Secondly,

[3] The concept of 'structures of living together' was originally introduced in Ricoeur, 1992:192.

groups can instrumentally affect individuals' well-being and capabilities, according to the rationale behind their social construction – i.e. efficiency functions, claim groups, pro-bono groups (Heyer et al., 2005:910).[4] Finally, Stewart stresses how groups may promote individual capabilities through reshaping individual values and preferences – i.e. constitutive function. By recognizing how different groups may have different abilities in accessing resources and power, Stewart (2005:192) reaches the following conclusion: "The capabilities and functionings of these collectives, which are group capabilities and group functionings, like those of individuals, are those things they may be or do. Because of the interactive element, the group capabilities of collective entities *are not simply the sum of the individual capabilities of members of the group*".

The concept of Social Capabilities (SC) has drawn attention to the fact that the "unit of analysis of poverty should not be *limited* to properties of individuals or households" (Comim and Kuklys 2002:2; Comim, 2008). Thus, it should be recognized that there is a systemic dimension of poverty – i.e. inability versus ability of social functioning – that is related to specific social/institutional properties that transcend individuals. The introduction of a systemic level concept of capability is the only way to disentangle those "factors of interdependence [that are] behind collective action and externality problems" (idem, 2002:13). Comim (2008:644) provides the following definition of SC:

"[SC] represent those sets of beings and doings that can only be achieved as a result of social interaction. Thus, social capabilities are those capabilities that cannot be reduced to properties of individuals; rather they reflect properties of social structures and systemic level outcomes. They may represent valuable opportunities that people can achieve as a result of their collective agency, or valuable freedoms that arise from their 'social connectedness' and cooperation. Social capabilities are properties of social structures and processes and their characteristics, such as trustworthiness, justice, reciprocity".

The introduction of the SC concept allows considering a meso-level of analysis that "does not exclude consideration of what happens at individual level, but is, rather, complementary" (Comim, 2008:643). According to Comim (2008), the reason why Sen refuses to theoretically recognize these systemic properties such as "communal values and identities" in the evaluative space is that these factors can be used as authoritarian instruments for reducing individual capabilities and their freedoms[5]. Moreover, as Robeyns (2005) stresses, focusing on social entities such as groups, traditional

[4] Stewart (2002:199) interestingly stresses how 'the ability to form such groups is not only a source of improved capabilities, but a capability itself'.

[5] However, it has been stressed that 'there is a tension in Sen's capability approach between its formalization as an ethical liberal theory and its use as a developmental normative framework' (Comim, 2008:635). In Sen's most recent contributions, some existing social/institutional properties of Indian communities such as their 'argumentative tradition – i.e. public reasoning' (Sen, 2005) or their 'strong cooperative tradition' in the state of Himachal Pradesh (Dreze and Sen, 2002) are treated as systemic properties that have an intrinsic and irreducible value.

communities and family may lead to underestimating or obscuring the fact that, within the same social/institutional structures, some agents may see their individual freedoms expanding while others having the opposite experience. A similar point has been raised by Alkire (2008:14) when she argues that "participation in the group may often affect different people's capabilities differently, and people may also value the effect of group participation differently […] and a claim that a structure or group provided a collective capability may overlook some significant dis-benefits or heterogeneities".

The three concepts of CC, GC and SC advocates for an augmented HCA in which (i) collectives, groups, social communities are seen as key enablers (not only constraining factors) in the expansion of individual human capabilities and (ii) irreducible systemic properties that define the "functioning of the whole society" (Jackson, 2005:105) are included in the human development evaluative space. A recent special issue of the *Journal of Human Development and Capabilities* (Tonon, 2018) has built on this debate, to establish a stronger link between 'communities' and 'capabilities' and shown how the HCA can benefit from considering the role of different types of communities.

Despite these important developments, these contributions have mainly focused on grassroots or communal organisations and attributed to these social structures the instrumental and intrinsic value of collective capabilities. As pointed out by Andreoni and Chang (2017), however, productive organisations and the relationship between human and productive capabilities has remained largely unexplored. This gap in the HCA has had two important implications. First, it has limited our understanding of the structural process whereby people discover the beings and doings that they value – what we call the 'constitutive' role of production; second, it has missed the opportunity of linking the HCA to various streams of literature focusing on collective productive capabilities. We turn to each of one of these issues below.

2.3 How do we discover the beings and doings we value? The 'constitutive' role of production

One of the key debates in the HCA is centred around two questions: (i) which list of capabilities ought to be considered most central to the expansion of human freedoms and (ii) whether or not development theory should define these capabilities *a priori*. In this so-called 'list' debate, two prominent perspectives have emerged. On the one hand, the 'agnostic' position, best represented by Amartya Sen, sees the task of defining a universal list of 'central' capabilities as being beyond the scope of development theory. For Sen, staying true to the democratic spirit of the HCA means leaving the definition of central capabilities to democratic processes in specific contexts (Sen, 2004). Following Sen, Robeyns (2017) suggests that, when the capabilities approach is used for policy work, "it is the people who will be affected by the policies who must decide what will count as valuable capabilities for the policy in question" (Robeyns, 2017: 173). The opposing camp, represented most prominently by Martha Nussbaum, criticizes Sen for refusing to specify a list of central capabilities (Nussbaum, 2003;

Roemer, 1996; Sugden, 1993). The fundamental concern of these critiques is that the concept of development as the expansion of capabilities has limited practical utility if it does not define a set of central capabilities that can guide normative assessments and political action. To this end, Nussbaum's (2006) minimal theory of justice proposes a list of ten — albeit broad — central capabilities to which all human beings should be entitled.

There are merits and demerits in both positions. In the case of Nussbaum, the provision of an explicit list of core capabilities is helpful in that it provides a starting point for democratic deliberation as to which capabilities a given society may choose to prioritize. However, as we discuss in section four below, when it comes to development analysis, Nussbaum's list is too broad, vague and individualistic to capture some capabilities that classical development theory has long understood to be unambiguously crucial to the development process, especially collective productive capabilities. Sen's position is equally problematic. Though his affirmation of the democratic process as the legitimate space for the definition of capabilities is laudable, his refusal at the theoretical level to define a core list of capabilities for development has not spared him the responsibility in practice. For instance, when called upon to help define development metrics – proxies for prioritized capabilities – in his work on the United Nations' *Human Development Reports*,[6] Sen did not refuse, despite the fact that no broad global democratic process was deployed from which he could draw on.

The main problem of these two positions is that they do not engage with the fundamental question of how individuals and societies come to value certain beings and doings. To the extent that Sen does that, he seems to associate this process to an argumentative social process. However, how do people involved in this argumentative process form their ideas of beings and doings? Classical political economists have looked at changes in production as central processes shaping humans and societies. Adam Smith are Karl Marx, for example, were extremely concerned about the positive as well as negative effects that the more minute division of labour within factories can have on human beings.

"The man whose whole life is spent in performing a few simple operations, of which the effects are perhaps always the same, or very nearly the same, has no occasion to exert his understanding or to exercise his invention in finding out expedients for removing difficulties which never occur. He naturally loses, therefore, the habit of such exertion, and generally becomes as stupid and ignorant as it is possible for a human creature to become. The torpor of his mind renders him not only incapable of relishing or bearing a part in any rational conversation, but of conceiving any generous, noble, or tender sentiment, and consequently of forming any just judgment concerning many even of the ordinary duties of private life. (Smith, 1776, V.i.f.50:782).

[6] Sen has participated in several on the UN's *Human Development Reports* as a consultant or an advisor and participated in the definition of the metrics for the Human Development Index in the *Reports*.

"In handicrafts and manufacture, the workman makes use of a tool, in the factory, the machine makes use of him. There the movements of the instrument of labour proceed from him, here it is the movements of the machine that he must follow. In manufacture the workmen are parts of a living mechanism. In the factory we have a lifeless mechanism independent of the workman, who becomes its mere living appendage" (Marx, *Capital*; first source Rosenberg, 1994:44).

These passages have been often used to highlight the potentially negative impact (or 'alienation' in Marx's writings) that a certain form of production organisation can have on workers or to acknowledge Smith's argument in support of public education (i.e. to counter the mental de-gradation of workers confined to simple, repetitive tasks). However, they point to three more fundamental issues.

First, they show that human capabilities and production are intrinsically interlinked, and that the relationship can be both negative (reducing freedoms) and positive (increasing freedoms via learning), depending on the ways in which production processes are structured. In other words, the fact that the involvement in production activities may be detrimental for human capabilities should not lead us to underestimate the fact that the development of production capabilities is also constitutive of human beings' flourishing.

Second, since the advent of the industrial revolution, division of labour has made production (more than ever) a *collective process*. Even self-employed individual producers rely on the existence of a dense network of production interdependences**,** linking all producers in a complex matrix. Productive structures are complex social organisations whose functioning depends on various forms of co-operation between all human beings involved. More critically, the set of collective capabilities that workers develop in production units as 'complex organisational entities' are not reducible to any human beings involved in the process. As language is an irreducible social good with intrinsic value for a society, similarly, production routines, procedures and organisational capabilities are intrinsically valuable systemic properties of developed and productive communities (Penrose, 1959; Nelson and Winter, 1982; Abramovitz, 1995; Lazonick, 1990; Andreoni, 2014).

Third, productive transformation has been a major driver of change in many dimensions of human societies. In Kuznets's words (1973:247; italics added):

"A country's economic growth may be defined as a long-term rise in capacity to supply increasingly diverse economic goods to its population, this growing capacity based on *advancing technology and the institutional and ideological adjustments that it demands.* […] Thus, not only are high aggregate growth rates associated with rapid changes in economic structure, but the latter are also associated with rapid *changes in other aspects of society – in family formation, in urbanization, in man's views on his role and the measure of his achievement in society*".

The existence of this interplay between changes in technologies, institutions and ideologies is central in the social process of discovering the beings and doing – both individual and collective – that human society might end up valuing. Production structures and their transformation will not simply play an instrumental role in the development process, that is, creating the material conditions for better human conditions. Through their interplay with institutions and ideologies as well as their role in constituting and re-constituting individuals through their collective work experiences, production structures affect those historical and context-dependent processes through which societies develop their own ideas of human development and freedoms.

In sum, the content and the scope of human development, that is, the individual capabilities and freedoms that societies value, do not exist independently of their societies. They are historically determined and socially recognised as a result of a process of structural transformation**,** mainly triggered by changes in production structures, institutions and ideologies**,** which in turn are influenced (albeit not determined) by the transformation in the sphere of production. In this sense, production is a constitutive dimension of human development, not simply an instrumental one.

3. Human beings and worker's doings: The collective productive capability dimension

The claim that work is central to the lived experience of human beings hardly needs justification. For all but a small class of rentiers, work is the activity that occupies most of our waking hours. As Andreoni and Chang (2017) point out, "it is within the realm of production that human beings develop their identities as producers" (p. 178). One might go a step further to note that our identities as producers are a central part of our overall identity and, to borrow the language of self-determination theory (Hirai, 2018), play a determinant role in our sense of purpose and autonomy, our sense of connectedness to other human beings on a daily basis, and our sense of 'mastery' over our environment. In short, the roles people play in the sphere of production are a central part of their 'flourishing' and it is, therefore, somewhat striking that the HCA has devoted so little attention to exploring what it means to expand our freedoms and capabilities in relationship to this sphere of human experience.

Despite its lack of focus on production and its failure to recognise its constitutive role, the HCA has looked at work as an important experience of human life. In what follows we try to integrate these initial efforts within the HCA with other streams of literature on productive capabilities towards a more enriched perspective of the collective productive capability dimension.

3.1 The human capabilities scholarship on work

According to Estevez (2020), at the conceptual level, most prominent authors in the HCA, like Martha Nussbaum, do recognize the importance of capabilities associated with production, but do so only to a limited extent. Nussbaum's list of ten central capabilities acknowledges the importance of being able to "seek employment on an equal basis with others", to "work as a human being, exercising practical reason and entering into meaningful relationships of mutual recognition with other workers" (2011: 31). One could also easily trace connections between work, production, and other capabilities that Nussbaum highlights, such as "having the social bases of self-respect and non-humiliation; being able to be treated as a dignified being whose worth is equal to that of others" and "being able to use imagination and thought in connection with experiencing and producing works and events of one's own choice" (pp. 31-32). As pointed out by Comim (2014: 142), Nussbaum (2006) goes as far as to make policy recommendations related to work, arguing that "a major aim of public policy" from the HCA should be "the transformation of the workplace, through new flexibility and new radical norms" that counteract the effect that corporate structures, organizational culture, and the pressure for profit have on workload and on workers' freedoms to flexibly allocate their time.

Sen (1999) also makes some clear assertions with regard to the relationship between freedom and labor. He strongly emphasizes freedom from labor bondage as an end in itself, juxtaposing this claim against a utilitarian perspective in which the desirability of freedom from bondage might be contingent on proving that such an arrangement would also raise productivity (see, for example Sen, 1999: 29-30). Reflecting on the plight of poor workers, Sen argues that economic "unfreedom, in the form of extreme poverty, can make a person helpless prey in the violation of other kinds of freedom" (Sen, 1999: 8). He also reflects on questions of labor in discussions on adaptive preferences, where he points out that, while exploited workers (among other exploited people) can adapt to their condition in order to minimize negative impacts on their sense of wellbeing, this does not diminish the undesirability of their condition of exploitation or society's duty to address it (Robeyns, 2017: 131).

As Comim (2014) points out, however, perhaps due to the emphasis that the HCA has placed on critiquing growth as a measure of development, issues related to production, like the generation of income through work, have been all too easily neglected in the literature. The question of work remains, in his words, "an exciting field" in which research could be directed toward a better understanding of how "beings and doings are shaped (and therefore, how they can be changed)" in the workplace (Comim, 2014: 142).

We propose, however, that, when conceptualizing the relationship between development and productive capabilities, development analysis must look beyond the question of how workers' beings and doings are transformed in the workplace and examine how the workplace needs to be transformed in order to expand the freedoms not only of workers but of the population more broadly. This kind of transformation

entails more than changing the norms and organizational culture of individual workplaces to improve the conditions of its workers, as Nussbaum suggests. It also entails investigating what kinds of productive capabilities – organizational, technological and human – countries must collectively create in order to engage in the kind of productive activities (work) that is necessary to increase and better distribute per capita income, eliminate poverty, and increase the standard of living of their population. To answer this question, the capabilities approach must engage in a dialogue with the vast scholarship on productive capabilities stemming from classical development theory and associated streams of literature on technological change.

3.2. Collective productive capabilities and development

The issue of the development of productive capabilities has been at the centre of the classical development theory of the 1950s and the 1960s (Chang, 2011). Drawing on the influences from the Classical, the Marxist and the Institutionalist schools of economics, it very much emphasized the centrality of the transformation of the productive sphere in the development process – transfer of labour from subsistence agriculture to industry (modern mining and manufacturing), mechanization of production processes (both in agriculture and industry), development of the capital goods sector (or at least the development of an efficient export sector that can earn the foreign exchanges necessary for the import of such goods), importation and application of advanced technologies (for a review, see Andreoni and Chang, 2017).

Despite the centrality of the development of productive capabilities in its discourse, the classical development theory had a relatively crude understanding of how these capabilities develop. It was assumed that, once 'modern', high-productivity industries are set up and new technologies introduced to 'traditional' sectors, the production units will have little trouble absorbing the new technologies and achieving their full productivity potentials. This meant that the micro-learning dynamics at the level of production organisations (firms, mines, or farms) was largely ignored. The poor understanding of learning dynamics at the sites of production also meant that, even while the enhancement of productive capabilities was seen by definition as a collective process, there was little discussion of the ways in which production transformation and 'learning in production' enhance individual and collective human capabilities. While Sen's critique (1997) of classical development theory pointed in the same direction, his lack of focus on productive organisations has led the HCA to abandon the field of production and, in turn, de-link the development of human capabilities from the development of collective productive capabilities. Therefore, while the economics and the development literatures developed several streams of research on collective productive capabilities, these streams have never been integrated within the HCA[7].

[7] Von Tunzlemann and Wang (2007) and Andreoni and Chang (2017) are the two only other contributions in which the link between these different streams of literature has been proposed.

Two very influential attempts to open the black box of production can be found in the *capability theory of the firm* (CTF) and the so called *technological capabilities approach* (TCA).

The CTF emerged at the intersection of various research fields, especially including organisational, structural and historical studies (March and Simon, 1958; Penrose 1959; Richardson, 1972; Chandler, 1977; Lazonick, 1990 and 2009; Scazzieri, 1993; Andreoni, 2014), on the one hand, and institutional and evolutionary economics (Nelson and Winter, 1982; Cohen and Levinthal, 1990; Lundvall, 1992; Dosi et al. 2000), on the other hand. According to this approach, the execution of different technological and organisational functions and productive activities by a given firm requires a set of 'appropriate' and 'collective' *productive capabilities*. Each technological and organisational function entails the execution of a set of interdependent production activities (and tasks as their components). Therefore, production and its performance measurement (i.e. productivity) is never reducible to the individual. It is an organisational collective outcome. These functions and activities are, of course, industry-specific as well as process- and product-specific. Therefore, their execution requires very specific combination of productive capabilities.

The TCA (Lall 1992 and 2001; Bell and Pavitt, 1993) has drawn our attention to the need to understand the specific micro-learning dynamics at the sites of production, especially in developing countries. It has provided a wealth of information on how firms and workers in developing countries absorb and adapt new technologies, a process that involves re-designing of the shop floor, re-organization of workflow, and worker training (and re-training). In developing its understanding of this micro-learning dynamics, the TCA has allowed us to see clearly that many of productive capabilities are collective rather than individual. Enhancing productive capabilities at the firm level is not just a matter of having better trained workers, more qualified engineers, and (in larger firms with some R&D capabilities) more research scientists, but also of improving the coordination between different units in the firm and working more effectively with outside collaborators (e.g., supplier or buying firms, consultants).

At the intersection of the CTF and TCA, the literature on National Systems of Innovation (NSI) pioneered by Nelson (1993) has developed a more systematic view of how the process of productive capabilities development is not simply the sum total of such development in individual production units. The process is a 'collective' one not only in the sense that it requires coordinated improvements in other organisations that individual production units need to work with (e.g., supplier firms, buying firms, providers of technical consultancy) but also in the sense that it requires the construction of institutions and organizations that can provide collective inputs that are beyond the capacities of individual production units. These collective institutions and organizations include: (i) industry associations, cooperatives, and consortiums that provide collective inputs that are too costly for individual producers to provide, due to high fixed costs

(e.g., information collection, export marketing services, collectively-owned processing facilities); (ii) public or quasi-public agencies that provide technical consultancy and/or R&D, especially for SMEs, given the 'public goods' nature of knowledge and the high fixed costs in its provision; (iii) arrangements that link universities more closely to production units so that they can provide more practical research and find solutions to specific problems; (iv) legal provision for research consortium, especially regarding risk-sharing and the pooling of resulting patents (see Chang and Andreoni, 2019 for a detailed analysis of 'institutions of production').

Despite focusing on different aspects of the production process and its transformation, the CTF, TCA and NSI share the idea of production as a collective process. Given the collective nature of the production process, human beings, both as individuals and as groups, do not simply coordinate their productive efforts with each other, they also continuously experience processes of collective and cumulative learning. Therefore, the development of *'collective productive capabilities'* has multiple impacts on broader society development as well as on productive organisations.

First, as already pointed out in section 2.3, the changes in collective productive capabilities play a 'constitutive' role in development, as they affect the ways in which individuals and collectives build their identities, values and goals. Productive structures are in this sense social structures, and as such they are linked to individual agents by a two-way relationship: individual agents are constituted by and constitute the social/production structure in which they are embedded (Giddens 1984; Hodgson 2000; Chang and Evans 2005; Jackson 2005).

Second, changes in production organisations, routines and techniques always require changes in producers' conditions and their relationships with each other at the shop floor level. These changes are key in determining power relationships not just within the shop floor but also across broader society. In particular, the way in which the value created in production is distributed across society is a major determinant of human capabilities and powers (Gramsci, 2014; Sraffa, 1960; Lazonick, 1990 and 2009; Andreoni and Chang, 2017; Martins, 2019)[8].

Third, as emphasised by Amsden's Late-Industrializing Model, processes of collective learning within productive enterprises (whereby production engineering and project execution capabilities are developed by producing and then remembered by doing) have been the main factors triggering the highest levels of micro-efficiency and long cycles of sustained competitiveness and prosperity among the East Asian Tigers (Amsden, 1991). Within this model, "[g]overnments' role has been one of joining with the private sector to socially construct competitive assets (resources, capabilities and

[8] Martins (2019) notes how Sen's original formulation of his ideas in a 1978 lecture in Stockholm – published later in the 1984 collection Resources, Values and Development (Sen 1984) used then the term primary powers, to be contrasted with Rawls' (1971) primary goods. But this terminology was abandoned in the following years.

organisations) rather to create perfect markets" (Amsden 1997:478). The social construction of competitive assets relies on multiple forms of government intervention, including: technology infrastructure development (e.g., provision of technology extension services, various technology services to help firms absorb foreign technologies and reach higher quality standards, and the diffusion of better management techniques and practices); disciplined and conditional subsidies for export promotion; an integrated approach to infant industry protection and export promotion; orchestration of sectoral development and inter-sectoral transition; smart circumvention of international regulations that limit a country's production transformation and technological learning (e.g., WTO restrictions on the use of FDI regulation) (Chang and Andreoni, 2020).

4. Why the omissions of the human capabilities literature matter: implications for economic development and policy

The omissions and ambiguities that mark the treatment of productive capabilities in the scholarly HCA literature are not merely a matter of theoretical interest: they have real world consequences. This section shows how the theoretical limitations of the HCA are mirrored in the dominant policy-oriented 'practitioner' literature that has guided country-level policy-making around the world — namely in the UN's Millennium Development Goals (2000-2015), Sustainable Development Goals (2015 -), and the *Human Development Reports* published by the UNDP (United Nations Development Program), the most extensive development agency of the UN. Most critically, we show how policies that have proved to be essential for the development of productive capabilities are either largely absent or, in some cases, even discouraged, effectively undermining developmental efforts.

4.1. Policy prescriptions in the *Human Development Reports*: ambiguities, inconsistencies and omissions

In a large-scale study carried out for the United Nations, Lengfelder (2016) examines every *Human Development Report*, from 1990 to 2014 and finds that, rather than following from the theoretical orientations of the human development approach (or what we have been calling the 'HCA' in this article)), "the [HDR's] policy suggestions follow certain ideological strands that have evolved over time", such that both "liberal" and "regulatory" policy options are recommended in different moments (Lengfelder 2016, 6-12).

Our own, more targeted, analysis of the economic policy prescriptions in the *Human Development Reports* (henceforth HDRs) covering the period between 1990 and 2016 (Estevez, 2020) is largely consistent with Lengfelder's assessment, but we differ on two points. First, while Lengfelder sees the "diversity" of policy options in the HDRs as a

helpful product of the "flexibility" of the human development approach, we find that the contradictions in the HDR's policy recommendations are often confused and confusing. In other words, they obscure, rather than clarify, what policies are most conducive to human development. Second, we believe that, while the conflict between "liberal" vs. "regulatory" policy options, as characterized by Lengerfeld, is relevant, the more relevant conflict is between small-scale, superficial versus large-scale, structural policy measures, which are not reducible to the liberal vs. regulatory dichotomy.

The first Human Development Report (1990), for example, only addresses productive capabilities by recommending "the development of micro, small, and medium-size enterprises through such mechanisms as small-scale credit schemes, volunteer executive programmes and venture capital". There is no mention of crucial industrial policies required for the development of collective productive capabilities aimed at large-scale, structural change, such as infant industry promotion (through tools like targeted tariffs and state-owned enterprises).[9] r Instead, the report strictly constrains the role of the public sector: in what reads almost like a caricature of the Washington Consensus-era policy prescriptions, the report argues that "[w]hat is required is a smaller but more effective public sector" and that the "role of the public sector should be confined primarily to building economic infrastructure and to providing social services" (UNDP, 1990: 64).

The ambiguity or outright omission of production-sector policy in the *Human Development Reports* has been more or less consistent. Take, for example, the 1996 report, whose thematic focus is economic growth. Despite the theme, there are only two references to industrial policy in the whole report, when there was already a substantial body of literature showing the importance of industrial policy in the economic development of many East Asian and European economies (for example, see Amsden, 1989, and Wade, 1990 on East Asia; Zysman & Cohen, 1993, on France; Katzenstein, 1985, on small European economies). Interestingly, these are more laudatory than disparaging. In addition to praising Sweden's "activist industrial policy" (UNDP, 1996: 54), the report asserts that "[f]orms of central planning that are indicative rather than directive also continue to be used with great success, notably in the high-growth countries. The model of development followed by Indonesia, Japan, Malaysia and the Republic of Korea, for example, has used industrial policy to channel resources into the sectors of the economy with the most growth potential" (UNDP, 1996: 49). Lest the reader become too enthusiastic about industrial policy, however, the report also

[9] See Chang, 2002 for an extensive discussion of these policies and their role in development across countries and throughout history.

vehemently defends Mexico's accession to NAFTA (North American Free Trade Agreement) arguing that "because of NAFTA, Mexico has continued liberalizing its economy and has expanded exports considerably since the 1994 devaluation, moving ever more firmly towards a solid economic basis for sustained economic and employment growth" (UNDP, 1996: 96). This assessment contrasts starkly with the kinds of industrial policies endorsed earlier in the report, which are not at all consistent with the kind of wholesale liberalization contained in NAFTA. Even more importantly, as time would show, it has turned out to be inconsistent with reality, as Mexico has experienced marked economic and social declines after NAFTA (Weisbrot, Lefebvre, and Sammut, 2014).

Another example of this kind of contradiction is in the 1997 report. While Lengfelder notes that this report introduces more "regulatory" language on the management of trade and capital flows, it also continues to argue for World-Bank-IMF-style structural adjustment — albeit of the "pro-poor" variety (UNDP 1997, 78). Thus, in emphasizing "the need for an activist state", the report makes it clear that this "activism" should be confined to social policies that "empower the poor" (UNDP, 1997: 101-106). There is not a single mention of productive capabilities or industrial policy, not even to speak of their role in enhancing individual capabilities by empowering people and creating opportunities for quality work.

While the laudatory language on structural adjustment gradually disappears from the reports and favorable mentions of public goods and industrial policy increase (UNDP 2003, 2010, 2011, 2013), measures to improve productive capabilities remain largely absent in the specific policy recommendations. Nowhere is this more conspicuous than in the 2015 report, whose thematic focus is "work for human development". Despite the supposed theme, the report fails to include a single mention of industrial policy or even industrialization. Indeed, the only two mentions of industrialization are in a list of the Sustainable Development Goals (UNDP, 2015: 15) and in a reference to the negative effects of industrialization on land and water scarcity and on land productivity (UNDP, 2015: 149). Interestingly, the report contains a suggestive section titled "structural transformation of work", but its contents are devoted to explaining the shift "from agriculture to industry to services" and the need to focus on "where jobs will be", rather than to proactively transforming productive capabilities and, with them, opportunities for and the quality of work.

The 2016 HDR, whose thematic focus is "human development for everyone" shows a clear move toward a more "regulatory" approach. For example, the report is critical of what it calls "liberal" policies, arguing that, in the past, developing countries have accepted "restrictions on national policy-making in investment protection treaties, tax incentives to foreign companies and the liberalization of trade", some of which later became obstacles for development policies (UNDP 2016, 138). The report even uses

the case of Ecuador's dispute with Occidental Petroleum[11] before the International Centre for Settlement of Investment disputes, to illustrate the dangers of accepting the terms of Bilateral Investment Treaties (BITs), which restricts a country's abilities to effectively regulate foreign investments.[12] Similarly, the report argues for the need to "regulate currency transactions and capital flows", noting that "even the IMF (which in 1997 attempted to make capital account liberalization mandatory for all its members) has recently acknowledged their benefits, highlighting that they reduced vulnerabilities (overheating and excessive indebtedness) before the financial crisis in 2008" (UNDP 2016, 148).

Despite this shift toward a "regulatory" approach, the report still pays scant attention to the issue of productive transformation and the development of productive capabilities. The bulk of policy recommendations continue to be focused on social issues, like "social protection", "empowerment", and "access to justice". There is no mention in the entire report of production-sector or industrial policies and, once again, a solitary mention of industrialization in the list of SDGs (SDG 9) (UNDP 2016, 46).

What can we conclude from the above analysis of the HDRs?

Lengfelder (2016) draws two conclusions. First, she observes that there is no concrete or explicit link between the policies recommended by the reports and the conceptual basis of the human development approach (or what we call the human capabilities approach, or HCA):

> [The] reports show both liberal and regulatory policy options with several different objectives that declaredly aim for human development as defined by the expansion of choices and capabilities. However, no concrete link between the policy options and the human development approach could so far be identified. The suggestions are not necessarily different from the ones commonly made by other institutions with a focus on development (Lengfelder 2016: 11).

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[11] "Bilateral investment treaties and national policies in Ecuador: In October 2012 an arbitration tribunal of the International Centre for Settlement of Investment Disputes ruled against Ecuador in a case brought by Occidental Petroleum Corporation and Occidental Exploration and Production Company under the United States–Ecuador Bilateral Investment Treaty. It imposed a penalty on Ecuador of $1.8 billion plus compound interest and litigation costs, bringing the award to $2.3 billion. What legal observers found striking about this judgement is that the tribunal recognized that Ecuador cancelled its contract because the company violated a key clause (selling 40 percent of the concession to another company without permission) but found that Ecuador violated the obligation of "fair and equitable treatment" under the United States–Ecuador Bilateral Investment Treaty" (UNDP 2016, 144).

[12] "International investment agreements and bilateral investment treaties might restrict governments' ability to define national policies and standards. These agreements often define expropriation as an action that reduces investors' expected profits—a very broad definition that is ripe for litigation. An international entity, in most cases the International Centre for Settlement of Investment Disputes, resolves disputes related to these instruments. Proper regulation of foreign corporations might become difficult (box 5.4). Most countries have signed some of the 2,958 bilateral investment treaties recorded by the United Nations Conference on Trade and Development" (UNDP 2016, 143).

Furthermore, the evolution of the policies is not presented in the HDRs as a reflection of "conceptual evolutions". Since the grounds for these changes are never "officially announced or conceptually explained in the reports", Lengerfeld concludes, "it is more likely that the general *Zeitgeist* led this evolution" (Lengfelder 2016: 11).

We agree with this conclusion, but add that "the general *Zeitgest*" is, itself, partly shaped by conceptual evolutions — it just so happens that the conceptual evolutions that account for the evolution of the HDR's economic policy prescriptions came from a different intellectual source than the HCA. As the mood in these debates became increasingly pro-regulation, so did the HDRs. The fact that the reports have not shifted toward greater recognition of production-sector policies likely speaks to the fact that productive capabilities remain marginal in the mainstream economic policy discussions and practice, as well as in the HCA, which exerts the greatest ideological influence on the reports.

Lengfelder's second conclusion is, in our view, more problematic. Due to the "broad nature" or the human development paradigm, she argues,

> it has left room for liberal as well as regulatory policy options, which provides policymakers with a range of suggestions to choose from. Moreover, considering the diversity of the world's countries, the broad nature and wide range of options enables policymakers to identify those policies that are right for the development priorities of their country (Lengfelder 2016, 17).

At first, this assessment appears consistent with the humanist spirit of flexibility and its distaste for paternalism and one-size-fits-all policies. However, as Lengfelder herself acknowledges, there is a trade-off between leaving this room for diversity and aiming for specific policy suggestions. And we believe that this trade-off is not a purely practical problem, but also an ethical one: if there is abundant evidence that certain policies are clearly better at expanding human freedoms, then those who have access to that evidence (i.e., anyone who has the opportunity to study those policies and their impacts) are ethically bound to make that evidence explicit, if not necessarily recommend those policies explicitly. If the HDRs were to take available evidence into account, they would not be so diverse in their policy recommendations and industrial policies for fostering productive capabilities would have taken the center stage.

4.2 The Millennium Development Goals and the Sustainable Development Goals: inching toward recognition of collective productive capabilities

Much like in the HDRs, the changing attitude toward economic policy between the MDGs (2000-2015) to the SDGs (2015-) features a generally more favorable view of market regulation. In contrast to the evolution of the HDRs, however, the move from

the MDGs to the SDGs also features a clear endorsement of industrial policy, rooted in the acknowledgment of the structural sources of poverty, unemployment and inequality, which many critics noted were conspicuously absent in the MDGs.[13]

For example, whereas industrial policy makes no appearance in the MDGs, the SDGs[14] include an entire goal (SDG 9) that explicitly identifies the need to ensure "a conducive policy environment for [...] industrial diversification and value addition to commodities" in order to "support domestic technology development, research and innovation in developing countries". Also in contrast to the MDGs, the SDGs raise the profile of full employment as a policy goal and recognize its close relationship to industrial strategy. Although the MDGs had already acknowledged the need to "achieve full and productive employment and decent work", this objective is only featured at the target level (Target 1.B), rather than at the goal level, which in this case was the goal of "eradicating extreme poverty and hunger". In contrast, the SDGs dedicate an entire goal (SDG 8) to full employment, explicitly linking it to economic growth ("Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all"). Furthermore, SDG 8's targets emphasize the link between employment and industrialization, calling for "higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors" (Target 8.2).

This emphasis on the importance of technological development by the developing countries also contrasts starkly with the MDG's aim to "make available the benefits of new technologies" to developing countries "in cooperation with the private sector" (Target 8.F). Whereas the SDGs see domestic technological upgrading as a means of increasing economic productivity and full employment, in the MDGs developing countries appear as passive recipients of technologies delivered by their industrialized counterparts. As Fukuda-Parr points out, even the UN Office of the High Commissioner for Human Rights (OHCHR) has criticized the MDGs for the assumption that poverty can be solved by providing "access" to technology (Fukuda-Parr 2016, 45-6).

Despite the move toward greater recognition of the importance of productive capabilities for development, however, even the SDGs are not without their ambiguities and contradictions. For example, while SDG 9 affirms the need to ensure "a conducive policy environment for [...] industrial diversification and value addition to commodities", SDG 17 aims at largely indiscriminate trade liberalization, without acknowledging that this effectively shrinks policy space for industrial diversification in developing countries. In fact, the SDGs copy much of the MDGs' "liberal" language

[13] For a broader discussion of the criticisms and evolution from the MDGs to the SDGs, see Sakiko Fukuda-Parr (2016) From the Millennium Development Goals to the Sustainable Development Goals: shifts in purpose, concept, and politics of global goal setting for development, *Gender & Development*, 24:1,43-52, DOI: 10.1080/13552074.2016.1145895

[14] See the United Nations Economic and Social Council (2016) Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators. New York, NY: UN ECOSOC

on trade, calling for "an open, rule-based, predictable, non-discriminatory trading [...] system" (Target 8.A). Although the SDGs add that this open, rules-based, non-discriminatory system should also be "equitable" (Target 17.10), the indicator of progress toward the target merely measures the overall lowering of the worldwide, weighted tariff average in different sectors (indicator 17.10.1). Pushing toward across-the-board tariff reductions hinders the use of targeted tariffs to pursue objectives like technology transfer and infant industry protection to promote new productive capabilities. This treatment of trade regulation in SDG 17 is also contradictory to the way trade is addressed in SDG 10 ("Reduce inequality within and among countries"), which requires trade rules to be based on the principle of "special and differential treatment" (SDT) for developing countries. SDT enters into direct conflict with the principle of "non-discrimination" proposed in 17.10.

The fact that the SDGs continue to promote some measures that are in conflict with its pro-industrial policy rhetoric reflects the persistence of the "liberal common sense" on trade, in which trade liberalization of all types is seen as being inherently pro-developmental while its possible conflicts with industrialization go unacknowledged. This contradiction is due to the failure on the part of the 'authors' of SDGs, who are still strongly grounded in the HCA, to fully appreciate how the development of productive capabilities needs to be understood as a 'collective' process that involves coordination between different policies (e.g., trade policy and industrial policy or industrial policy and macroeconomic policy), building of institutions and organizations that promote cooperation between different agents, and the construction of mechanisms to effectively generate, share, and transfer new knowledge.

5. Concluding remarks

In this paper, we have argued that capabilities-expansion is a social process, where everyone's 'personal' quest to expand their own capabilities is inextricably intertwined with the agency and the capabilities of others. One cannot, for example, seek to expand one's capability to read without the agency of writers, publishers, tree farmers and pulp processors (or their digital counterparts). In fact, one would not even be interested in acquiring the capability to read, were it not for the fact that reading is a means of connecting to, and functioning within, a broader social experience. In other words, a lot of capabilities, even if they are embodied in individuals, acquire meaning only through social interaction, involving other people's individual capabilities and, more importantly, some collective capabilities that transcend individuals.

Most neglected among these collective capabilities in the HCA is collective productive capabilities. Having been deliberately construed as an antidote to the collectivist bias of the classical development theory, which was (at least implicitly) willing to sacrifice individuals for the 'greater good' called economic development, the HCA has a strong individualistic bias, even while it is highly critical of the narrow, hedonistic

individualism of neo-liberal economics, its arch-enemy. However, this is a serious limitation, as many of our individual capabilities can be enhanced only if the society we live in acquires greater capabilities to produce the material and the organizational inputs necessary. To go back to the reading capability example, an individual's capability to read will be enhanced when the society can build more schools, hire more teachers, provide more public libraries, publish more books, and organize more and better literary events, if it acquires greater productive capabilities and thus can command greater material and organisational resources. More generally, collective productive capabilities need to be expanded in order to structurally lift countries out of poverty — that is, to create the structural change needed to sustainably expand a country's per capita income and, through it, its citizens' capabilities to be healthy, well-fed, clothed, housed, etc.

Despite this, the HCA, both in Sen's more reticent version and in Nussbaum's more forthright version, fails to highlight the centrality of non-individual capabilities that are clearly essential for development – especially collective productive capabilities. As we have shown in our analyses of the leading policy discourses influenced by the HCA, such as the UNDP's HDRs, on the one hand, and the MDGs and the SDGs, on the other hand, this failure has made the HCA to have superficial understandings of how to enhance human capabilities in the real world and led it to make recommendations for policies that, at best, lack transformative power and, at worst, provide no more than palliatives to the problems caused by policies based on neoclassical economics that the HCA was developed to replace.

In this paper, we have argued that, by more clearly emphasising the importance of collective capabilities and explicitly recognising the importance of collective *productive* capabilities into the development discourse, the HCA can have its important insights used in a way that supports and, more importantly, strengthens a more transformative and progressive development discourse. Especially given its intellectual affinity with other approaches that have been central to such discourse, such as the CFA and the TCA, this re-direction of the HCA should not be too difficult nor should it require the abandonment of its core ideas. We hope that this paper starts a collaboration between the HCA and the other, more collectivist and production-oriented 'capabilities' approaches, to the benefit of all development scholars and practitioners.

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