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Exploring Dynamics of Inequality in Human Development

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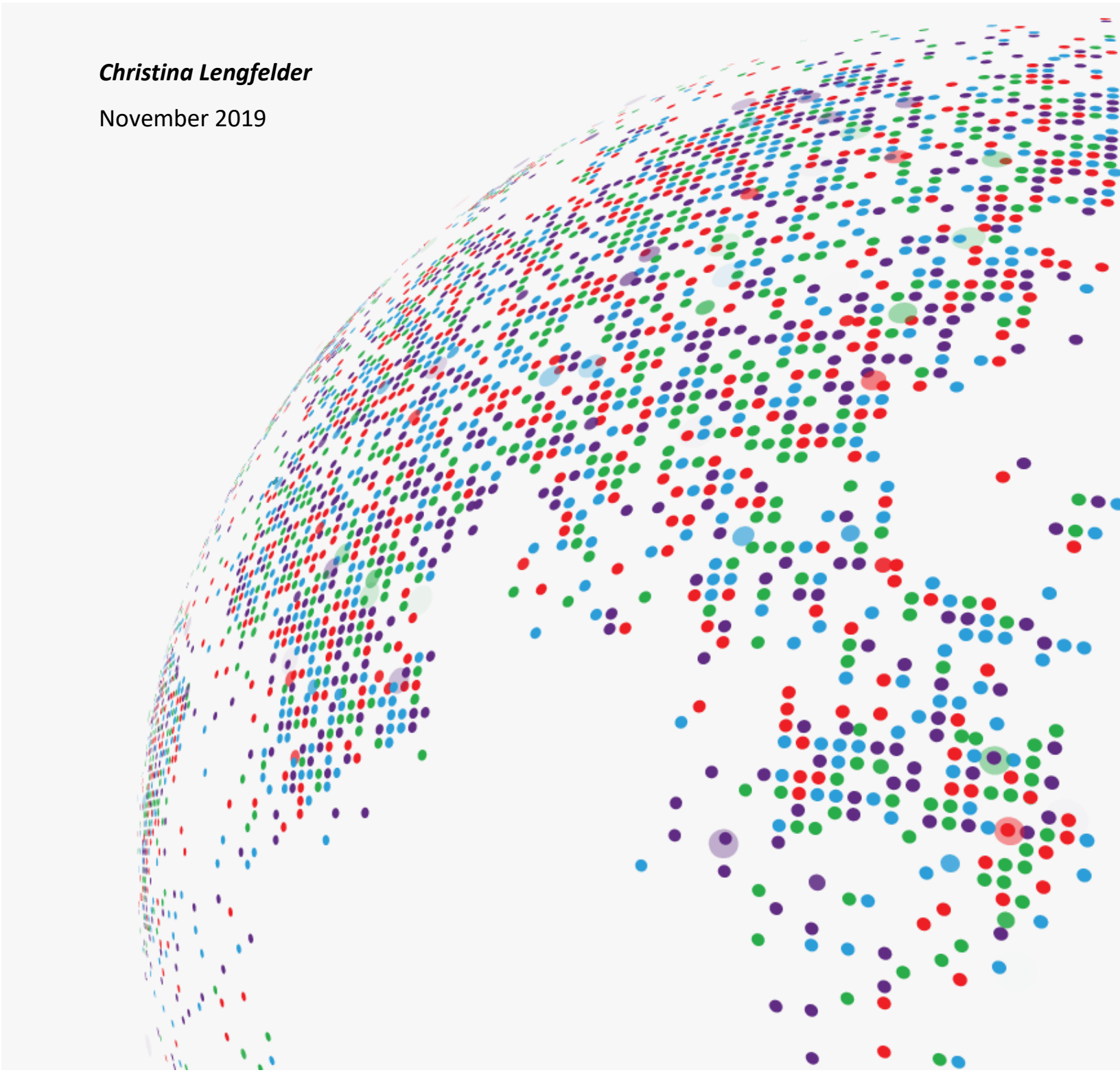

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ABSTRACT

Human development is about putting people at the centre of the development debate. The human development approach traditionally goes beyond economic growth to assess human development around the world. The present paper explores how inequalities emerge, interact and persist throughout generations. It will present literature arguing that income inequality adversely affects four constitutive areas of human development that are connected to one another. Two are straightforward and from the human development concept: education and health. The third and fourth areas go beyond individual outcomes, referring to the circumstances that frame human development: social cohesion, the extent to which people trust each other and participate in the civic and social life of their communities, and peace and security, the safe environment people need to develop their full potential. The paper finds that impairments in each of these areas are not only consequences of inequality, but also create more inequalities in other areas of human development, as they are connected to each other. Moreover, inequalities are often transmitted intergenerationally and thus perpetuated. These mechanisms will be called the dynamics of inequality. Finally, the paper will outline some policy options that aim at decelerating dynamics of inequality.

Introducing the dynamics of inequality

Assessing the dynamics of inequality in human development is an overall holistic exercise. It goes beyond income inequality and includes inequalities in multiple dimensions of life and society. Hence, it can become a complex endeavour. The present paper will explore how inequalities in human development emerge, interact and perpetuate themselves. It will present literature that argues that income inequality adversely affects four constitutive areas of human development. Two are straightforward and from the human development concept: education and health. Among other impacts, these two basic capabilities determine people's freedom to choose the functionings they value and have reason to value. The third and fourth areas go beyond individual outcomes, referring to the circumstances that frame human development. The first of these, social cohesion, is expressed by the extent to which people trust each other and participate in the civic and social life of their communities. It shapes people's interactions in complex societies. The second is peace and security, which refers to the safe environment people need to develop their full potential.[1]

The hypothesis that income inequality has adverse effects on societies is not new. Among others, Wilkinson and Pickett's (2011, 2018) famous but controversial work provides plenty of empirical evidence for developed countries, complementing correlations with some qualitative analysis, most notably in their recent book. The present paper revisits this literature, scrutinizes some of the correlations and complements it with data from the developing world. It adds that impairments in each of the four areas can themselves create inequalities in other areas of human development, and that many times inequalities are transmitted and thus perpetuated intergenerationally. We will call these mechanisms the dynamics of inequality.

Impressive progress in education, especially in countries of low human development, has narrowed the cross-national educational gap. Nonetheless, intergenerational persistence of inequality in education is higher in countries of low and medium human development, limiting social mobility. Substantial investments in early childhood development can be an entry point to tackle intergenerational cycles of inequality. Life also appears to be shorter and less healthy in unequal societies. But at a second glance, this can have other reasons than inequality itself. Stress and anxiety caused by high inequality, however, can lead to weak social cohesion. At the same time, unequal health outcomes can lead to inequalities in other areas of human development, such as education or income. Redistributive policies alone cannot break this cycle and should be complemented with universal access to quality health services, including mental health, and public awareness campaigns about healthy lifestyles. Unequal societies become socially alienated, with low levels of trust, solidarity, and political and social participation. This, in turn, diminishes support for redistributive policies that could

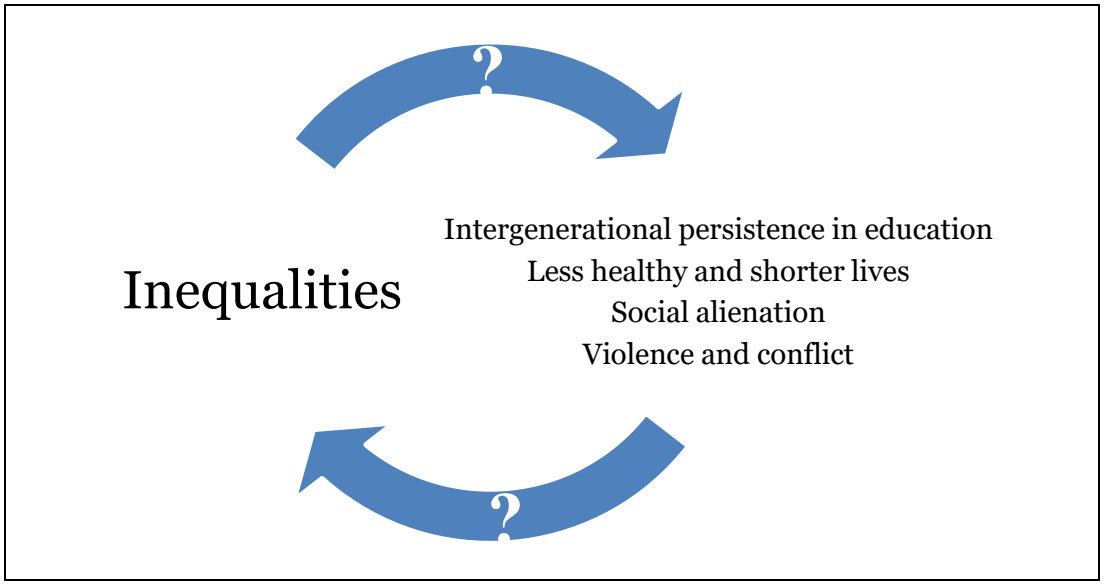
[1] This background paper neglects the environmental component, which could also be considered a constitutive area of human development. It is dealt with in depth in the *2019 Human Development Report* (UNDP 2019).

reduce inequality. To break this dynamic, people need to mingle and interact to increase awareness about life circumstances and the fate of fellow citizens, building trust and empathy. Finally, a combination of universal and targeted policies is needed to tackle horizontal inequality that can lead to violence and conflict under certain circumstances. Violent conflict itself can produce higher levels of inequality.

The paper argues that policy interventions are necessary in all four areas, with children's health being a vital starting point. Policy priorities should be set by each country, however, according to the specific local context. Some countries may already have good public health systems but could improve the affordability or accessibility of early childhood development programmes.[2] Each section of the paper will identify policy options that constitute potential entry points to decelerate dynamics of inequality in human development. These will be summarized in a policy table at the end of the paper.

Research presented in this paper was groundwork for the *2019 Human Development Report,* focusing mostly on the consequences of income inequality. We started out scrutinizing the argument that income inequality has negative effects on several aspects of human development, such as education, health, social cohesion and security. During our research, we found that these relations are much more complex and dynamic, as described in this paper and presented in Chapter 2 of the 2019 *Human Development Report*.

Figure 1: Exploring dynamics of inequality in human development



Source: Author's elaboration.

[2] Likewise, the paper will neglect the relation between inequality and economic growth, as well as policy options aimed at reducing income inequality directly (for example, fiscal policies) as these are also dealt with in other background papers and in the *Human Development Report* itself.

Why inequality in education persists through generations

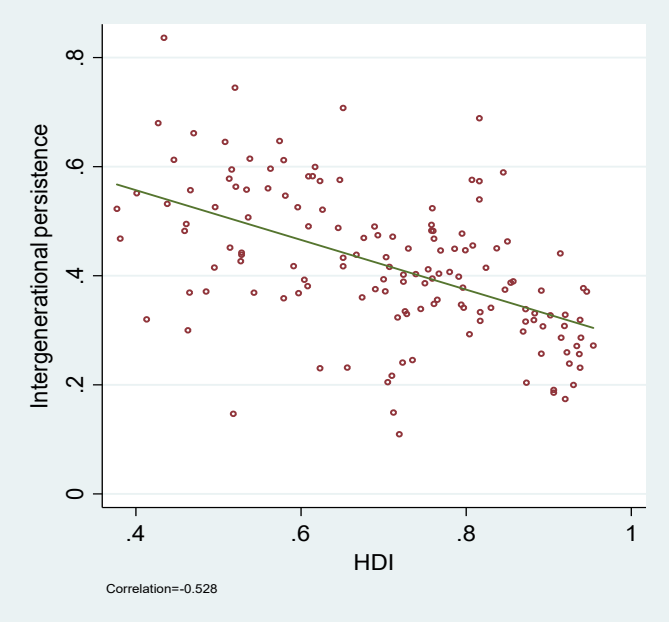
Ever since the Great Gatsby Curve, we know that in countries with higher income inequality, the fraction of income in the parents' generation passed on to the children's generation is higher, i.e. economic mobility is lower (Corak 2013). The human development perspective goes beyond income, assessing additional dimensions of development in a more holistic way. Rather than economic mobility, it focuses on social mobility, i.e., the movement of people within or between social strata in a society. In addition to income, education is a potential mobilizer of individuals. This section assesses whether only inequality in income persists throughout generations or whether this is also the case for education. Furthermore, it examines whether the level of mobility in education is related to the level of inequality in human development. Identifying some of the root causes of inequality in education, it suggests some entry points to decelerate dynamics of low social mobility, outlining some policy options that can contribute to improving social mobility.

Inequality in education persists throughout generations, and persistence is higher in countries with higher levels of human development. Intergenerational persistence of education is measured by the coefficient from a regression of respondents' years of schooling on the highest years of schooling of their parents. It reflects the estimated impact of one additional year of schooling of parents on the years of schooling of respondents (GDIM 2018).3 Figure 2 shows the negative relation between the intergenerational persistence coefficient and the human development index (HDI). It reveals that there are lower levels of relative mobility in education in countries of lower human development, i.e., levels of education are stickier in countries of lower human development.

But intergenerational persistence in education is also related to inequalities in human development. Figure 3 shows a positive correlation between the same coefficient of intergenerational persistence in education and the 'loss in the HDI due to inequality'. The latter is a percentage that is taken off the value of the HDI when calculating the inequality-adjusted human development index (IHDI). It can be understood as a penalty for inequality and reflects the level of inequalities in three components of the HDI in a given country. Hence, mobility in education is lower in countries with higher levels of inequalities in human development, i.e., levels of education are 'stickier' throughout generations in more unequal countries.

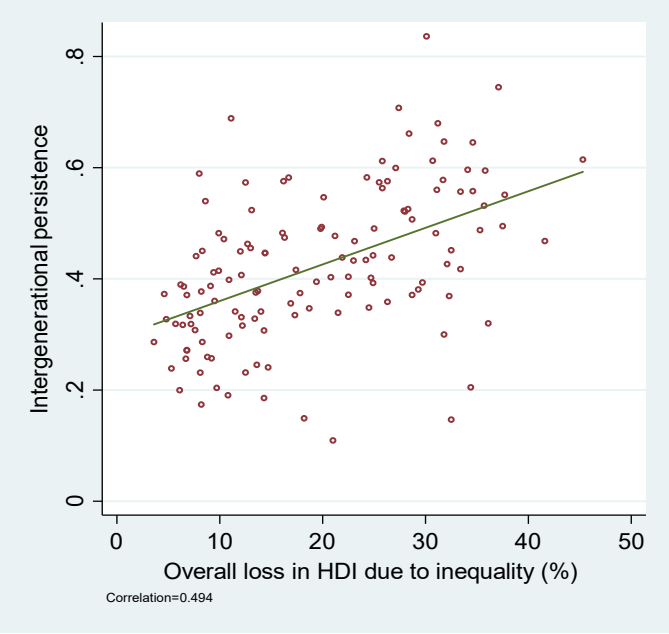
[3] Data are for the 1980 cohort and for the most recent year available.

Figure 2: Levels of education are stickier in countries of lower human development



Source: Author's elaboration with data from and GDIM 2018 and UNDP 2019.

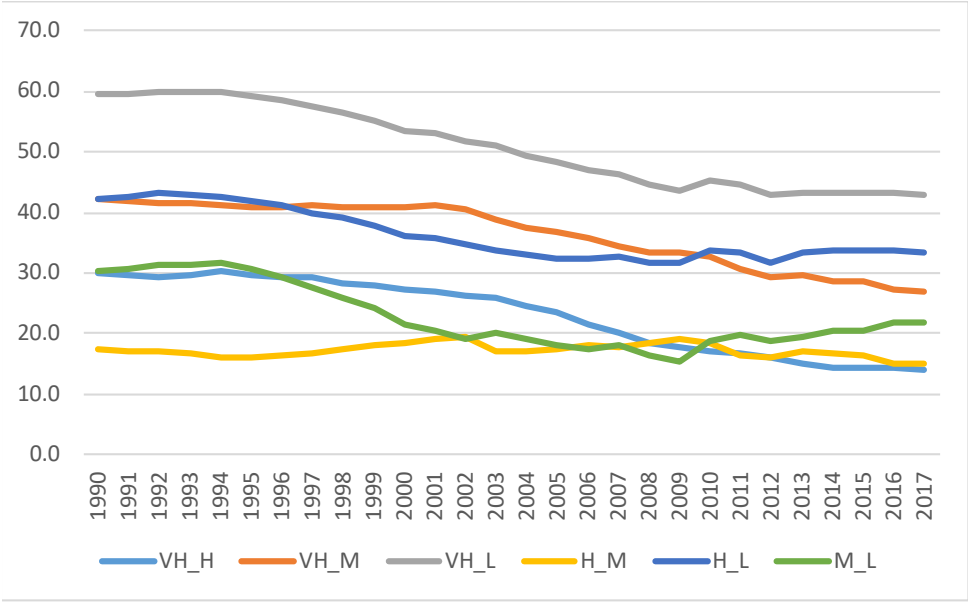
Figure 3: Levels of education are stickier throughout generations in more unequal countries



Source: Author's elaboration with data from GDIM 2018 and UNDP 2019.

Why do these correlations, which do not say anything about causality, matter? Education has repeatedly been suggested as an equalizer for societies, especially in the sense of creating equal opportunities (see, for example, Jerrim and Macmillan 2015). Yet despite impressive progress on the education front, especially in countries of low human development, intergenerational persistence is still higher in these countries than in countries of higher human development. Between 1990 and 2017, inequalities in expected years of schooling have significantly decreased (see Figure 4). This is mainly due to countries of medium, low and very low human development catching up on expected years of schooling to countries with very high human development. The largest relative decrease in inequality took place between very high human development countries and low human development countries. Inequalities between these two categories decreased by 52.7 percent between 1990 and 2017. A decrease in inequality has also been substantial between the categories of very high and medium human development (35.9 percent).

Figure 4: Decreasing inequality in expected years of schooling (1990-2017)



Note: VH_H= Inequality in expected years of schooling between countries of very high and high human development (%
VH_M= Inequality in expected years of schooling between countries of very high and medium human development (%)
VH_L= Inequality in expected years of schooling between countries of very high and low human development (%)
H_M= Inequality in expected years of schooling between countries of high and medium human development (%)
H_L= Inequality in expected years of schooling between countries of high and low human development (%)
M_L= Inequality in expected years of schooling between countries of very medium and low human development (%)

Source: Author's elaboration with data from UNESCO Institute for Statistics 2018; ICF Macro, various years; UNICEF Multiple Indicator Cluster Surveys, various years; and OECD 2017.

In light of this scenario, it is worth looking at the mechanisms behind inequality in education, and especially intergenerational persistence in education. Inequalities in levels of education start during infancy. Exposure to stimuli and the quality of care, both within the family and in institutional environments, are crucial for expanding children's choices in later life and helping them develop their full potential (Blossfeld et al. 2017, Elango et al. 2015). New research finds that there is a 13 percent return on investment in comprehensive, high-quality, birth-to-five early education, compared to a 7 percent to 10 percent return for preschool programs serving 3 to 4 year olds (García et al. 2017). But children from families with different levels of education and income have unequal access to these programmes and stimuli, at the national and global level. Enrolment in pre-primary programmes differs from 20 percent in countries of low human development to 33 percent in countries of medium human development to 83 percent in countries of very high human development (UNDP 2018).

But early childhood development programmes are not the only source of stimuli for young children. Families can be an equally important source of nurture; however, many times parents are not able to fully exploit this opportunity given time and/or knowledge constraints. This constitutes a substantial source of inequality that persists throughout the life cycle. For example, children from professional families in the United States are exposed to three times more words than children from families on welfare benefits (Wilkinson and Pickett 2018). This has consequences for early learning and consequently achievement scores (Heckman 2011, Heckman and Rubinstein 2001, Skopek and Passaretta 2018).

The argument is not only true for developed countries. A recent study on India, Pakistan and Uganda showed that equalizing grade attainment would only close between 8 percent (India) and 25 percent (Pakistan) of the gap in universal numeracy, and between 8 percent (Uganda) and 28 percent (Pakistan) of the gap in universal literacy. Moreover, children from the poorest 40 percent of households usually show lower abilities in literacy and numeracy at each grade. If these children had the same learning profiles as children from rich families, this would close between 16 percent (Pakistan and Uganda) and 34 percent (India) of the gap in universal numeracy, and between 13 percent (Uganda) and 44 percent (India) of the gap in universal literacy (Akmal and Pritchett 2019). This indicates that there are lower levels of learning starting at an early age that drag on throughout school careers.

Hence, children already start out unequal when they enter the formal education system.[4] This can explain part of the intergenerational persistence in education. Children with less capacity and lower

[4] A common counter argument to the early emerging skill gap being due to parental education and related stimuli is genetics. Good genes can only explain part of the picture, however. The standard estimate of heritability in behavioural genetics is 50 percent (Rowe 1994). It was also discovered that genetic expressions can be changed by environmental influence. The genetic expression of identical twins that were raised apart already differed by age 3 due to different exposure to stimuli in different living and learning environments (Fraga et al. 2005).

test scores are less likely to continue education, even though it may be available and accessible. In addition to access to formal schooling, substantial investment in early childhood development interventions is thus needed, especially in countries of low human development. In line with the human development approach, these should not be limited to formal early childhood development programmes, but should also include parenting support and home visits for parents who chose to stay home with their children.

Apart from an unequal start in pre-primary education, there are still some other barriers to educational mobility. In countries of low human development, children may be unable to attend school due to duties around the house or agricultural fields, or because of the need to generate additional family income. In countries where tertiary education is privatized, family income is also a strong determinant of children's ability to pursue higher education.

Research on 'compensatory advantage' has consistently shown that social background inequalities in final educational attainment are particularly large among students who perform poorly in school (Bernardi and Triventi 2018). This has been shown for Germany (Hartlaub and Schneider 2012), France (Bernardi and Boado 2013) and other European countries (Blossfeld et al. 2016), but also for very different institutional and political contexts, such as Soviet Leningrad in the late 1960s (Yanowitch 1978) and the United States in the late 1970s (Carneiro and Heckman 2003). In case of below-average performance in schools, children from high socio-economic status families have nevertheless much higher chances to move on and progress towards the highest level of education. In that case, parents of high socio-economic status can provide direct help; pay for private tutoring, computers and travel; or move their children to remedial school or to a less demanding school and thus guarantee them a second chance (Yastrebov, Kosyakova and Kurakin 2018). The recently discovered bribery cases in the United States are an extreme case in which rich celebrities paid large amounts of money to assure their children get in to renowned universities (Wolf 2019). Upper-class parents thus guarantee that their children attain the highest possible level of education, sometimes despite poor performance. All in all, they possess the economic, cultural and social resources to navigate the educational system and prevent their low-performing children from dropping out.

It has also been shown in cases of relatively low final educational attainment—for instance, when someone from a high socio-economic status family fails to attain a university degree or even an upper secondary diploma—that he or she has much higher chances of attaining a non-manual, relatively well-paid job and avoiding unskilled manual occupations. Therefore, those who come from high-socio-economic status families manage to avoid downward occupational mobility with respect to their parents even in case of poor educational performance (Bernardi and Ballarino 2016).

Hence, upper-class families consistently manage to avoid downward educational and social mobility for their children. Education is then the elevator that may move up some children of low socio-

economic status families who succeed in school. It does not move down in cases of failure among upper-class children, however. And for children of low socio-economic status who do succeed in school, there are still other barriers to entering the labour market, such as missing networks and even discrimination in selection processes. For instance, some studies have shown systemic discrimination against certain marginalized groups, many of them migrants. Net discrimination rates—the responses where only the majority applicant was invited to an interview minus the responses where only the minority applicant was invited to an interview—ranged from 10 percent to 48 percent. Moreover, results from studies conducted between 1966 to 2000 and those conducted later are very similar, suggesting little, if any, progress (Riach and Rich 2002, Rich 2014). Many aspects of children's outcomes are thus carried through to other stages of the life cycle, where they affect adults' ability to generate income. The resulting socio-economic status shapes mating behaviours among adults. People with a certain income and education tend to marry (or cohabit with) partners with similar socio-economic status, known as assortative mating (Blundell et al. 2018, Greenwood et al. 2014).[5] When these couples have children, the feedback loop starts from the top again, with parents' socio-economic status shaping their children's health and early childhood development.

Considering the above, access to quality education is not enough to break the cycle of intergenerational transmission of inequalities in human development. Educational expansion, in particular at the highest level, is not a guarantee of more intergenerational equality by itself, if it is not also coupled with corresponding occupational upgrading. In countries such as Italy and Spain, for instance, the proportion of those leaving the educational system with a university degree is now higher than the proportion of those employed in upper-class occupations. When the number of highly qualified school leavers exceeds the number of highly qualified occupations, the equalizing potential of education is likely to further diminish and the role of family origin is enhanced (Bernardi and Plavgo, forthcoming).

Some promising interventions could be parenting support and early childhood development programmes to create a more equal start, followed by universal access to quality education (including tertiary education), and active labour market policies that help the school-to-work transition, especially for traditionally marginalized youths. Considering the above statistical analysis, these interventions should be especially effective in countries with lower levels of human development and large inequalities in human development.

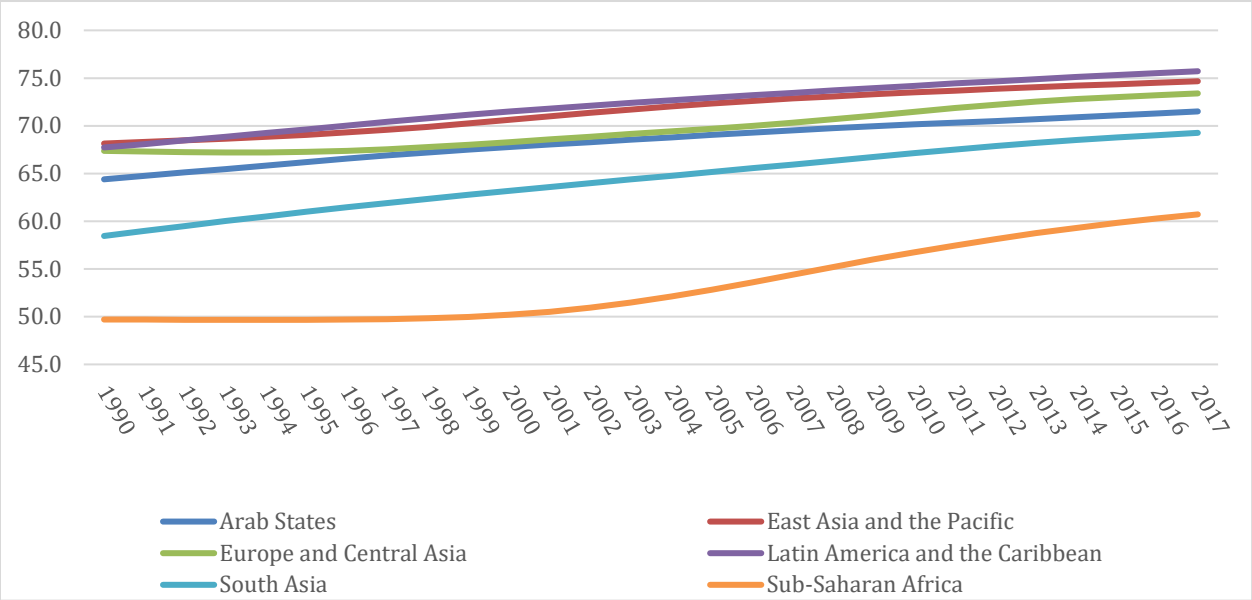
[5] Blundell et al. 2018, Greenwood et al. 2014. Evidence from Brazil shows that without the effect of educational assortative mating, the counterfactual Gini coefficient would have been lower than the actual one during more than 20 years (Hakak and Firpo 2017).

Do unequal societies live shorter, less healthy lives?

Human health is an essential capability that allows people to freely determine their functionings, i.e., to choose what they want to do with their lives. The impairment of health means serious deprivation that affects other areas of life and impedes people from developing their full potential. Large inequalities in health thus constitute a source of inequalities in other areas of life. But how do disparities in health come about? Angus Deaton (2013) argues that parents' income and education have profound effects on their children's health, which in turn affects their educational achievement and health in adulthood, and thus future income. Health gradients—disparities in health across socio-economic groups—start at birth, or even before in the uterus, and accumulate over the life cycle (Case and Paxson 2010; Currie 2009, 2011). Higher socio-economic status families invest in health, consume more healthily and are mostly able to avoid physically and psychosocially demanding work conditions. This in turn increases the gap between low and high socio-economic status individuals, even resulting in differences in life expectancy (Deaton 2003, 2013; Galama and Van Kippersluis 2018; McEniry et al. 2018).

There are large and persistent inequalities in health, proxied by life expectancy, between countries with different levels of human development. For very high human development countries, life expectancy is on average almost 80 years; in low human development countries, it is a little over 60 years. That makes a difference of on average 20 more years of life for people who happen to be born in the former. The differences are relatively small between countries of very high and high human development (3.5 years), larger between countries of high and medium human development (6.9 years), and largest between countries of medium and low human development (8.3 years) (UNDP 2018). Looking at development over time, most change has happened in sub-Saharan Africa. The region was able to increase life expectancy from 49.7 years in 1990 to 60.7 years in 2017. People there can thus expect to live on average 11 years longer than in 1990. Yet there is still a difference of 15 years in life expectancy between sub-Saharan Africa and the region with the highest life expectancy, which is Latin America and the Caribbean. Inequalities among the other regions are smaller and have mostly been shrinking, especially during the past 10 years (ibid.).

Figure 5: Sub-Saharan Africa is catching up on life expectancy



Source: Author's elaboration with data from UN DESA 2017.

Still, the probability of dying before age 5 is 4.5 times higher for babies born in sub-Saharan Africa than for those born in East Asia and the Pacific. Child malnutrition also varies widely throughout the world. More than half of Burundi's children under age 5 are stunted, while most high human development countries do not publish data on this issue anymore because it no longer exists. There are some exceptions: Brunei Darussalam and Malaysia still have stunting rates of about 20 percent, and in Montenegro, Oman and Uruguay, the rates range from 9 per cent to 14 percent, even as these countries all belong to the category of very high human development (ibid.).

Not only is length of life unequally distributed among countries, but so is the quality of health. The indicator of healthy life expectancy (HALE) provides information on whether the years lived are expected to be of 'full health', making life enjoyable and full of opportunities. HALE for countries of very high human development is about 70 years, whereas for countries of low human development it is only about 53.3 years (ibid.). A look at some specific diseases can shed light on causes of inequalities in life expectancy and healthy life expectancy. The prevalence of tuberculosis, for example, is only 0.8 in 100,000 people in the United Arab Emirates, but is 724 in 100,000 in Lesotho. The HIV rate is still high in the Kingdom of Eswatini (27.2 percent of the adult population), but it is only 0.1 percent in many countries of high human development, among them Australia, Bahrain, Kuwait and Romania (UNDP 2018). Malaria has been defeated in Sri Lanka, and its defeat is projected for Argentina, Belize, Costa Rica, Ecuador, El Salvador, Mexico, Paraguay and Suriname for 2020 (WHO 2017). But

prevalence is still high in Mali and Burkina Faso, with 459.7and 423.3 cases, respectively, per 1,000 people at risk (UNDP 2018).

With such unequal distribution of health conditions throughout the world, people are very differently endowed to develop their full potential. Differences in healthy life expectancy imply large inequalities in well-being. High rates of malaria or tuberculosis, for example, can hinder children from attending school. Likewise, high rates of HIV/AIDS can prevent some adults from participating in the labour market and seeking income. This, in turn, can affect the educational opportunities of their children, transmitting inequalities throughout generations. In all cases, large differences in health conditions can lead to multidimensional inequalities among societies.

Another dynamic between inequalities and health is argued to be consequential. Income inequality has been associated with several negative health outcomes at the societal level. The following will briefly review the related literature. For example, the Gini coefficient, the Atkinson index and the Theil entropy index correlate positively with life expectancy, infant mortality and the murder rate (Babones 2008; Wilkinson and Pickett 2011, 2018). For adult mortality, the effect has a time lag: It begins 5 years later, peaks 7 years later and diminishes after 12 years (Zheng 2012). Also, income inequality has a 139.7 percent to 374.3 percent more harmful effect on health (measured by life expectancy at birth, infant mortality and years lived with two types of disability) in countries with low GDP per capita than in countries with high GDP per capita (Curran and Mahutga 2018). Bernardi and Plavgo (2019) obtain similar results when grouping countries according to their level of human development. For countries of low and medium human development, there is a significant negative association between the Gini coefficient and life expectancy at birth, while the result is not significant for countries of high and very high human development.[6] For both groups, GDP per capita and years of schooling are highly significant control variables that are positively associated with life expectancy at birth. This supports what Angus Deaton (2003, 2013) has argued for a long time; that levels of income as well as education (and potentially other variables such as race) rather than income inequality affect human health outcomes.[7]

[6] Control variables include mean years of schooling, GDP per capita, government health expenditure, the polity score, Fearon's measure of ethnic diversity, and two interactions terms, namely the Gini coefficient with mean years of schooling, and the Gini coefficient with GDP per capita.

[7] Looking at some measures of human development, there is also a statistically significant negative association between inequalities in human development and the health component of the human development index, namely life expectancy at birth. Life expectancy but also healthy life expectancy at birth are higher in countries with lower levels of inequalities in human development, measured by the 'overall loss in the HDI due to inequality (percentage)'. Healthy life expectancy is the number of years that a person can expect to live in full health without diseases or injuries. The correlation coefficients for the overall loss in HDI due to inequality (percentage) and life expectancy at birth and healthy life expectancy at birth are -0.850 and -0.792, respectively (author's calculation). Similar to the studies that use the Gini coefficient, these correlations likely suffer from mechanical issues explained at length in Deaton 2003. They are probably due to some other underlying variables such as *levels* of income and education (and potentially race), while in the case of the human development measures there are additional issues of multicollinearity (because life expectancy at birth is itself a component of the HDI, which is the index adjusted for inequality when calculating the 'overall loss in

With regard to infant mortality and birth outcomes, further evidence suggests that income inequality together with social policies explain variations in both variables (Kim and Saada 2013). The relation between infant mortality and income inequality is strong for developed countries, while in the least developed countries, absolute income is a stronger determinant of infant mortality (Ram 2006). For adults from developed countries, the Gini index is positively associated with the mortality of males and females at ages 15 to 49, and with the mortality of females at ages 65 to 89, although less strongly than for the younger age groups (Torre and Myrskylä 2014). Obesity, diabetes mortality and calorie consumption are also positively associated with income inequality in developed countries. While these diseases are often related to high levels of stress, increased nutritional problems may also be a consequence of the psychosocial impact of living in a more hierarchical society (Pickett et al. 2005). Another explanation is that healthy food is often more expensive and takes more time to prepare than fast food or processed food.

With such controversial evidence around the consequential relation between inequality and health (especially life expectancy), a look at some potential explanations for why life could be less healthy or shorter in unequal societies may be helpful. One is that relationships to others, the level of social support and social networks—which are generally weaker in unequal societies, as will be shown in the section below on social cohesion—shape our health. Weak relations have been linked to cardiovascular diseases, slow recovery from heart attacks and some other illnesses, at least in developed countries (Wilkinson and Pickett 2011). Another explanation is chronic levels of stress, which are usually higher in more unequal societies (Burns, Tomita and Kapadia 2014). Stress and other mental illnesses, but also subjective well-being and happiness, affect the neural system and in turn the immune system. Some can even cause coronary heart disease, gastrointestinal distress and cancer (Vitetta et al. 2005, Wilkinson and Pickett 2011). The Whitehall studies on public employees, for example, found that high levels of stress, especially at work, are related to a number of diseases. Specifically, the combination of both high demands and low control at the job, self-reported job insecurity, as well as high effort-reward imbalance cause stress and are risk factors for coronary heart disease (Ferrie et al. 2013, Kivimäki and Kawachi 2012). All three are typical characteristics of jobs in countries with high levels of inequality. In view of the rather meagre evidence, however, these explanations are insufficient to nail down the causal relation between inequalities and health (especially life expectancy). Systematic qualitative research on the possible mechanisms working behind the correlations are needed to ascertain whether there really is a causal relationship.

the HDI due to inequality') as well as the way the HDI is adjusted for inequality through the Atkinson index, which inflates inequalities at lower levels of human development. For more details on how the IHDI is calculated, please see Alkire and Foster 2010.

INEQUALITIES AND MENTAL HEALTH

Mental health is a fundamental component of human development. This is, on the one hand, because of the similarity between the two concepts, and, on the other hand, due to the loop of causality between the two. According to the World Health Organization (WHO), mental health is much more than the freedom from mental disorders. It is a "a state of well-being in which an individual can realize his or her own potential, cope with the normal stresses of life, work productively and make a contribution to the community" (WHO 2014a). Human development "is about creating an environment in which people can develop their full potential and lead productive, creative lives in accord with their needs and interests" (UNDP 2001, p. 12). This means that human development is about creating the external environment in which people can realize their full potential, while mental health is about the internal ability of people to realize their full potential. Yet both depend on one another. For example, living in a country that provides the external environment—let's say, free universal education—does not necessarily mean that full potential can be realized. It may be impeded by mental health disorders, such as anxiety disorder, which leads to a limited ability to concentrate, and thus hinders successful learning.

Mental health disorders can be used as proxies for mental health in empirical analysis. For developing countries, data for proxies of mental health, i.e., diagnosed mental disorders, are scarce because of a lack of medical services in this area. Even for developed countries, the quality of data may vary due to stigma around mental health issues that makes individuals reluctant to reveal information and/or seek professional help. Some mental disorders include depression, schizophrenia, anxiety disorder and substance abuse. For the first, Patel et al. (2018) carried out a systematic review including 26 studies on developed countries. Nearly two thirds of all studies and five out of six longitudinal studies reported a statistically significant positive relationship between income inequality and risk of depression; only one study reported a statistically significant negative relationship. These findings had been preceded by a study of 17,348 university students from 23 high-, middle- and low-income countries. The authors found that higher depressive symptoms are related to greater income inequality and to societies with less individualistic cultures (Steptoe, Tsuda and Tanaka 2007). Yu (2018) recently added an interesting component, using gender-disaggregated data from 122 countries in all categories of human development. Using the Human Development Report's gender inequality index, the study finds a significant correlation between gender inequality and gender disparities in mental health. Moreover, the GINI index is significantly associated with male—but not female—depressive disorder rates. Gender disparities in depressive disorders are also associated with a country's wealth.

For the other mental health disorders, finding empirical evidence is more challenging, especially for the developing world. A study on psychotic symptoms shows that the positive relation between income inequality and hallucinations, delusions of thought control and delusional mood withstands control over national indices of per capita income and regime type in 50 developed countries (Johnson,

Wibbels and Wilkinson 2015). Moreover, chronic stress is associated with living in highly disparate societies and places individuals at risk of schizophrenia (Burns, Tomita and Kapadia 2014).

Income inequality also appears to be related to some addictions, most notably heroin, cocaine and amphetamines. With alcohol, the relation is less clear: drinking any alcohol is more common higher up the social ladder, but problematic drinking is more common further down (Wilkinson and Pickett 2018). Also, income inequality has been linked to more frequent drinking (in a study only for New York City, ibid.), to heavier drinking among adolescents in rich countries, to per capita alcohol consumption in European countries (Cutright and Fernquist 2011) and to deaths attributed to alcohol in Australia (Wilkinson and Pickett 2018).

Since the WHO's definition of mental health constitutes a concept that is much wider than the mere freedom from mental illness, other components of well-being or rather ill-being that do not fall in the category of diagnosed mental health diseases should be considered. Wilkinson and Pickett (2018) put forward the notion that income inequality leads to status anxiety and poor social interaction. The consequences can be threefold, according to the authors. Some people are overcome by low self-esteem, a lack of confidence and depression, while others become increasingly narcissistic and deploy various forms of self-aggrandizement to bolster their position in others' eyes. Both groups become more likely to self-medicate with drugs and alcohol, and fall prey to consumerism to improve self-presentation. As a consequence, social life turns into a performance, people withdraw from interaction and community life weakens. These findings are in line with those of other authors who find that people from low-inequality countries report less status anxiety than those in countries of higher inequality at all levels of income (Layte and Whelan 2014).

TOWARDS HEALTHIER SOCIETIES

The health conditions discussed above can detrimentally affect the ability to pursue education, participate productively in the labour market and generate income. This in turn can contribute to the intergenerational transmission of inequalities when parents' levels of education and income are transmitted to future generations. Hence, inequalities in several different dimensions of human development are perpetuated throughout generations. To decelerate this dynamic, there are two entry points for policy intervention. One is redistributive policies and strong labour market institutions to reduce levels of stress and anxiety. The other is improved and equal access to quality health services. In very unequal countries, access to these services is, more often than not, unevenly distributed among the population. The rich can pay for high-quality private services, while the poor struggle with long waiting times and poor-quality public services, if these are available at all. This exacerbates inequalities in other areas of human development.

Access to mental health services is a special challenge. Not only is this area of health widely underfunded—especially but not exclusively in developing countries (globally, government expenditure on mental health as a percentage of total government expenditure on health is only 3.4 percent, but it goes as low as 0.01 percent in Zimbabwe and 0.1 percent in Papua New Guinea)—but stigma often impedes people from seeking help even if care is available and accessible (WHO 2014b). There is also a funding gap between traditional and more modern mental health treatments. The former often includes psychiatric medication with short-term effects, which are covered by health insurance. The latter consists of more complex techniques that aim at curing the problem at its roots and that are thus sustainable in the long run, such as yoga or meditation. Their effectiveness has only recently been studied (see for example Bansal, Mittal and Seth 2016; Butler et al. 2008; Gabriel et al. 2018), and since their effect usually shows over a long period of time, the evidence is not yet sufficient to compete with studies on the short-term effectiveness of pharmaceuticals. As a consequence, fees must mostly be paid out of pocket.

To work towards healthier societies overall, and prevent and minimize treatment needs, governments can also run public campaigns about healthy life styles and nutrition. These can be promoted on television, social media, in schools and other places of public interest.

Are unequal societies less cohesive?

A large body of literature puts forward that income inequality damages social cohesion in societies. From this perspective, trust, solidarity, and civic and cultural participation are detrimentally affected by large income gaps, damaging the social contract. But does income inequality really only damage social cohesion, or is the relationship also dynamic, where societies with less social cohesion also block redistributive policies?

Sociologist Emile Durkheim defines social cohesion as interdependence among members of society, and their shared loyalty and solidarity. Important features of social cohesion include the strength of social relationships, shared values, feelings of identity and the sense of belonging to a certain community, participation and trust among members of society (Berger-Schmitt 2000). The most common measurements include trust as well as social/cultural and civic participation.

Trusting people means accepting strangers as part of a community and sharing with them the underlying commonality of values. Trust is based on senses of optimism and control: putting faith in strangers is not seen as risky (Uslaner 2002). Lower inequality in income has been associated with citizens placing more trust in one another, especially where authorities are seen as incorruptible, welfare state institutions are strong, and political interests are represented in a manner proportional to their weight (Elgar and Aitken 2010, Freitag and Bühlmann 2009, Uslaner and Brown 2005). One

explanation for this relation is that inequalities make poor people feel powerless and less trusting, while people at the top and bottom do not feel they share the same fate or should strive towards a common goal (Uslaner and Brown 2005). But causality may as well run in both directions as shown by political scientist Robert Putnam (2000). Putnam (2001) postulates that people who are more involved in social life will 'do more to reduce inequality'. The following section on participation supports his argument. Moreover, Wilkinson and Pickett (2011) find that changes in income inequality and trust go together throughout time in developed countries, so that it is likely that both reinforce each other.[8]

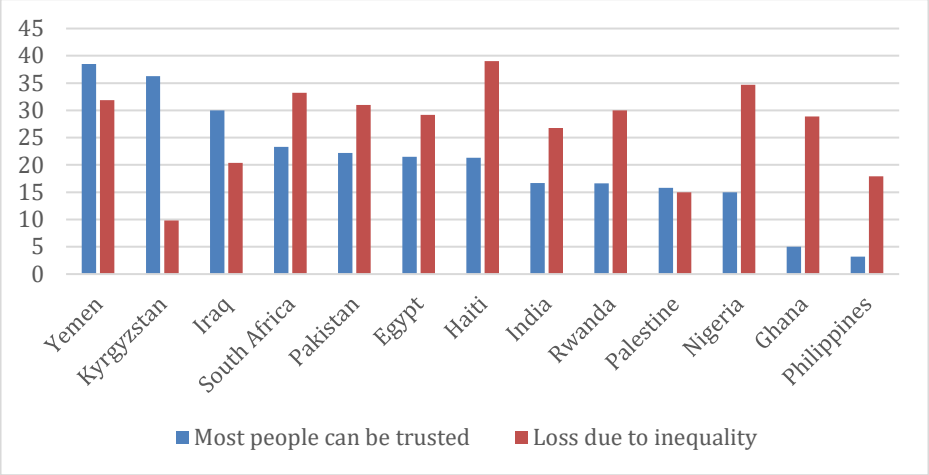
It has also been shown that in European countries with higher income inequality, people are less willing to improve the living conditions of others; i.e., there is less solidarity, independent from household income (Paskov and Dewilde 2012). The same authors also found that where there is less solidarity, people are less likely to support redistributive institutions such as the welfare state. Again, causality between inequality and solidarity may go in both directions, perpetuating inequalities throughout generations.

Zooming in on the developing world, we found that levels of trust are generally very low in 16 countries of medium and low human development, based on available data from the World Values Survey (Inglehart et al. 2014). On average, only 13 percent of the respondents agreed that most people can be trusted, and there is not much variance in levels of trust between countries. On a simple bar diagram, levels of trust appear to be unrelated to levels of inequality in human development calculated by the percentage loss on the HDI due to inequality, but further statistical analysis would be inappropriate given the small sample size and lack of variance among variables. Figure 8 shows 'loss in human development due to inequalities' and the percentage of people who responded that they think most people can be trusted.

Trust has also been found to vary with ethnic diversity. In diverse societies, people tend to withdraw from certain social interactions, which diminishes trust and social cohesion (David et al. 2018). This dynamic can also be turned into an opportunity, however. When there are more possibilities for interethnic interaction, trust and networks can be built among different ethnicities. From the policy side, it can thus be beneficial to create plenty of opportunities for interethnic interaction (as, for example, through an ethnicity quota in schools or other public entities) and a common goal to strive for (Directorate-General for Research and Innovation 2014).

[8] The authors use data from the World Values Survey (Inglehart et al. 2014).

Figure 8: Levels of trust and inequality in selected developing countries



Note: Libya, Morocco and Zimbabwe were taken out of the sample because IHDI data are not available. Source: Author's elaboration with data from the World Values Survey Wave 6, Inglehart et al. 2014.

It has been argued that universal policies are needed to decrease inequalities, which is, however, often challenging precisely because of the lack of trust, both in other people and in government institutions, in highly unequal countries. When at the same time corruption is high, the so-called social trap occurs: Rich people benefit from corruption and see 'the poor' as undeserving, while poor people do not support universal policies either, because in their view 'the rich' are already benefitting too much from the system to deserve access to universal social services (Rothstein and Uslaner 2005).

The effect of mingling and interacting probably not only applies to different ethnicities, but also to people from different social strands. In highly unequal countries, people from different social strands are less likely to mingle and interact with each other. They probably live in different neighbourhoods, their children attend different schools, they read different newspapers and are in different groups on social media (Buttrick and Oishi 2017). Their worldview is thus radically different, and they know little about the fate of their fellow citizens. Moreover, people who do not meet and interact do not directly see the concerns and needs of others. Once they do, they may be able to better understand each other's perspectives, increase trust and empathy, and be more open to universal policies. This, in turn would decrease inequalities.

DYNAMICS OF CIVIC PARTICIPATION AND INEQUALITIES

Most literature on advanced industrial democracies puts forwards that income inequality depresses political participation, specifically, the frequency of political discussion and participation in elections among all citizens but the richest (Lancee and Van de Werfhorst 2012, Solt 2008). Income inequality is thus transferred into political inequality. With mostly the rich engaging in political activity, the

privileged group can again mould the system according to its own needs and preferences, which leads to even more inequalities. This is often referred to as the elite capture of institutions.[9] The negative relation is muted in Organisation for Economic Co-operation and Development (OECD) countries, however, when there is more than one leftist political party, because competition creates incentives for a dominant leftist party to mobilize lower-income voters (Anderson and Beramendi 2012). Empirically, less civic participation has been related to more unequal societies mostly in wealthy democracies, and mostly in Europe (see, for example, Solt 2008, Lancee and Van de Werfhorst 2012). For Latin America, the relation has been studied more in detail, with the finding that income inequality usually leads to less political participation among the poor, but that participation actually increases under populist rule. Most likely, this is because populist leaders trigger grievances by explicitly connecting political and socio-economic exclusion (Piñeiro, Rhodes-Purdy and Rosenblatt 2016). For other developing countries, there are not enough data to establish a relationship between inequalities and political participation, but a deeper dive into World Values Survey data reveals that levels of civic participation in general are very low in the few developing countries with available data.

The variable of civic participation can be constructed from survey questions about active membership in five different organizations with the purpose of public good, namely consumer, environmental or humanitarian organizations; labour unions or political parties. The result is that civic participation in these countries is extremely low: On average, only 5 percent of the respondents are active members in one or more of the above organizations. Moreover, there is hardly any variance between countries (see Table 1), which makes statistical analysis of the relation between inequalities and civic participation rates unsuitable beyond descriptive statistics. The Philippines is the country with the highest average participation rate in the sample, mostly due to participation in environmental and humanitarian organizations. But even in this country, active membership in selected civic organizations does not exceed 16 percent of the population. In Egypt, as little as 0.38 percent of the population is an active member in one or more of the included organizations. On average, there is only a 5.2 percent participation rate in these types of civic organizations in the selected countries.

On the policy side, wage policies, such as raising the minimum wage, have been proposed to increase civic participation. For citizens to participate, so the argument goes, people need to have a certain degree of individual autonomy, which can only be achieved with sufficient economic resources (Levin-Waldman 2016). Low participation rates in developing countries support the logic of this argument. Raising the minimum wage also has an effect of its own on inequalities: Not only would participation rates raise, but income inequality would most likely also decrease as a result of this policy. This of

[9] For a more comprehensive discussion on this, see the *2016 Human Development Report* (UNDP 2016).

course only works in the formal labour market and in countries able to implement effective wage policies.

Table 1: Active membership in civic participation, selected developing countries

Active membe	Palestine	Ghana	Haiti	India	Iraq	Kyrgyzstan	Libya	Morocco	Nigeria	Pakistan	Philippines	Rwanda	South Africa	Zimbabwe	Egypt	Yemen	Average
Consumer organization	0.8	1.8	0.3	3.4	0.3	5.8	2.9	0.2	6.8	0.3	7.9	5.8	5.4	1.9	0	0.8	3.1
Environmental organization	1.5	5.4	0.5	4.8	0.8	4.3	3.4	0.5	7.1	0.9	15.5	3.7	6.6	3.6	0.3	0.9	4.1
Humanitarian or Charitable organization	4.8	4.1	0.6	5.1	3.8	9	12.2	1.4	7.7	1.7	16.4	5.8	6.5	6.1	0.4	3.3	5.7
Labour union	3.1	6.3	0.4	6.3	0.8	9.7	6.2	0.9	6.7	2.5	9.8	14.9	8.5	3.1	0.3	0.5	5.5
Political party	7.9	12.1	2.4	8.4	1.9	6.3	1.5	1.2	12	3.1	9.5	14.5	12.5	13.4	0.9	6.5	7.6
Average	**3.62**	**5.94**	**0.84**	**5.6**	**1.52**	**7.02**	**5.24**	**0.84**	**8.06**	**1.7**	**11.82**	**8.94**	**7.9**	**5.62**	**0.38**	**2.4**	**5.2**

Source: Author's elaboration with data from the World Values Survey Wave 6, Inglehart et al. 2014.

DYNAMICS OF SOCIAL/CULTURAL PARTICIPATION AND INEQUALITIES

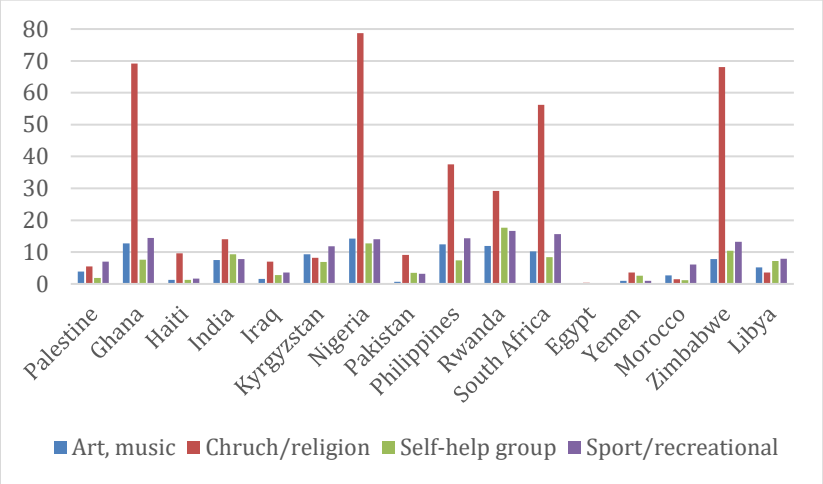
Social and cultural participation is the way people take part in community life, whether as a member of a social organization or by visiting cultural events or sites. Empirically, in 22 European countries, cultural participation is lower in countries with higher income inequality (Szlendak and Karwacki 2012).10 Another study found that the relation between income and social and cultural participation is stronger than the one between income inequality and social/cultural participation. The former relation increases under conditions of high inequality, however (Lancee and Van de Werfhorst 2012).11 One reason for this negative association may be that in countries with high inequality, people focus most of their attention on income-generating activities to purchase material goods and achieve economic status, while there is less time and energy for non-commercial and cultural activities (ibid., see also Wilkinson and Pickett 2018). But here again, causality can also go in the other direction as suggested in Putnam's argument above. People are willing to do more to reduce inequalities when they are more involved with other people in a society and in social life.

For developing countries, there is not enough empirical evidence to study the relation between inequalities and social/cultural participation. Data from the World Values Survey can be used to construct a variable that can be called social/cultural participation, based on survey questions about active membership in a church, self-help group, sports or recreation organization, or art or music

[10] In the cited study, cultural participation is measured by the percentage of people who have read at least one book, visited an art gallery/museum or have been to the theatre at least once during the last 12 months. Inequality is measured by the Gini coefficient and the quintile share ratio.
[11] Social participation is defined here as the extent to which people interact with their friends and family, and cultural participation is measured in terms of engagement in cultural activities, such as attending the cinema or visiting cultural sites.

organization. The sample only includes 16 countries of low and medium human development, however, and participation rates are low except for church membership. Only 12.6 percent of respondents are active members in such organizations, while the share is only 7.7 percent when church membership is taken out. On average, 27.3 percent of respondents are active members in a church or other religious organization, while the highest participation rate in this area is almost 80 percent in Nigeria. Variance in participation rates is insufficient to do further statistical analysis once church participation is taken out, and would be highly skewed if it were left in. The lowest average participation rates are in Egypt where only 0.3 percent of the population is an active member in one of the assessed organizations. Rwanda has relatively higher participation rates compared to the other countries, which is interesting considering successful efforts aimed at peace and reconciliation among different population groups.

Figure 9: Low social/cultural participation, except religious, in developing countries



Source: Author's elaboration with data from the World Values Survey Wave 6, Inglehart et al. 2014.

In many developing countries, the concept of cultural participation or engaging in social life may be very different from the one in rich western societies. Instead of participating in a music organization, for example, people in developing countries may get together and play music at someone's house. Instead of visiting a self-help group, people may chat during a visit at the local market and give advice to each other, without, however, identifying this activity as a self-help group. Moreover, there may be safety and security concerns that impede participation in activities that are unrelated to levels of inequalities. These factors, together with the above argument on insufficient economic resources, may partly explain low cultural participation rates in countries of low and medium human development. From a policy perspective, incentives for increasing social and cultural participation so that people from all classes, ethnicities and backgrounds can mingle and interact may help to strengthen ties

among them, creating awareness of each other's concerns and needs. Since social, cultural or recreational activities can be pricey, subsidizing, for example, public swimming pools, museums, art galleries, music classes or concerts could increase participation from lower income groups as well. Eventually, this may lead to more political support for redistributive policies.

The dynamics of social cohesion and inequalities are strongly connected to the ones of education and inequalities. Universal education can create strong social bonds among different groups in a society by teaching people about different cultures and bringing them into contact with people of different backgrounds (Darden 2013, Uslaner 2002). It can also teach norms and values and promote participatory and active citizenship (OECD 2010). The rampant increase in global average years of education thus gives hope for stronger social cohesion in the future, but more could to be done regarding curricula that teach integration and socio-emotional learning.

Violent dynamics

This last section explores some violent dynamics of inequality, namely homicides and armed conflict. Empirically, there are more homicides in countries with higher income inequality across all categories of human development. For high and very high human development countries, the relation is strong: Income inequality explains almost a third of the overall variation in homicide rates, even after accounting for years of schooling, GDP per capita, democratization and ethnic fractionalization (Bernardi and Plavgo 2019; see also Kawachi, Kennedy and Wilkinson 1999; Pickett, Mookherjee and Wilkinson 2005).12 Education has a moderating effect on this relation, but only in high and very high human development countries: 1.8 more years of average schooling more than halves the association between income inequality and homicide rates (Bernardi and Plavgo 2019).13 The mechanism behind this relation is less clear. Some suggest that the feeling of shame and humiliation in unequal societies drives violence, predominantly by young men pressured to ensure status (Pickett, Mookherjee and Wilkinson 2005). Others suggest a psychosocial explanation: Income inequality intensifies social hierarchies, causing social anxiety and class conflict, and damaging trust and social cohesion (Kawachi, Kennedy, and Wilkinson 1999). This is empirically supported by data showing a negative correlation between trust and income inequality—at least in developed countries (see above). Societies with low trust and weak social cohesion have lower capacity to create safe communities, and this, together with high pressure for status, may increase violence.

[12] In Bernardi and Plavgo's (2019) study homicide rates were transferred into their natural logarithmic form to compensate for the extreme outliers.
[13] This was determined through an interaction effect between the Gini coefficient and mean years of schooling. There is no such moderating effect for low and medium human development countries.

On a macro level, evidence about the relation between inequalities and violence is mixed. Studies on this date back a long time, most notably to Ted Gurr's established theory in *Why Men Rebel* (Gurr 2015). The theory stipulates that grievance-induced discontent may explain violent political mobilization, but empirical evidence has remained controversial. Whereas some studies have found that income inequality triggers socio-economic instability that may or may not lead to conflict (e.g., Alesina and Perotti 1996), others have shown no relation between inequalities and violent conflict (Collier and Hoeffler 1998, Fearon and Laitin 2003). Frances Stewart has refined conceptual thinking on this topic, suggesting that horizontal as opposed to vertical inequalities can cause political disturbances, including violent conflict and civil war (Stewart, 2005, 2009, 2016a, 2016b). She defines horizontal inequalities as inequalities between different groups that show common behaviour and values, while they distinguish themselves from others by means of a common history, religion, language, race, region, class or the like. Horizontal inequalities are different from vertical inequalities, which "line individuals or households up vertically and measure[s] inequality over the range of individuals" (Stewart 2005, p. 3). Cultural differences exist in most societies, but they only lead to conflict and violence when they coincide with extreme social, economic and political inequalities between the different cultural groups (Stewart 2005, 2009, 2016a, 2016b). Another necessary condition for conflict is that leaders or elites have an interest in mobilizing groups and thus initiate conflict. This interest often results from political horizontal inequalities at the elite level (Langer 2005). Stewart adds some more determinants of conflict, namely, the nature of the State and its reactions, the role of local institutions and the presence of natural resources (Stewart 2009).

Recent research has contributed empirical evidence to underpin the significance of horizontal inequalities as a cause of conflict and violence. A study that compares civil and communal conflicts of 155 politically relevant ethnic groups in Africa, for example, has shown that political and economic horizontal inequalities lead to conflict (Bartusevičius 2017, Hillesund 2019). The targets of violence differ for these two types of horizontal inequalities, however. Political exclusion is found to lead to violence that targets the central government because only it can change the distribution of power. Economic horizontal inequality is suggested more broadly as a determinant of organized political violence, increasing the risk of civil and communal conflicts. Communal conflicts are found to be driven mostly by politically included groups who have less reason to fear government intervention (Hillesund 2019).

Another study uses perception data from the Afrobarometer suggesting that not only do real horizontal inequalities matter for determining conflict, but also perceived inequalities and exclusion (Langer and Stewart 2015, Miodownik and Nir 2016). The likelihood of social unrest increases when individuals perceive their group as disadvantaged. Support for violence is highest when included groups that enjoy a high political status perceive that the government treats them unfairly. But the effect of exclusion on support for violence can also be attenuated by subjective perceptions. Going beyond averages, studies

on the subnational level contribute further evidence. In China's Xinjiang region, for example, incidents of ethnic violence are positively related to interethnic inequalities, whereas natural resources such as oil and cotton are unrelated to these incidents (Cao et al. 2017). Evidence from Palestinians in the West Bank and Gaza shows a negative relation between higher perceived status of civil and political rights and the lower probability of supporting violent resistance. Individuals are more likely to support violent resistance when the differences in household expenditure and consumer durable ownership between their region and the closest Israeli subdistrict are higher (Hillesund 2015).

If horizontal inequalities are a driver of violent conflict, the latter can also increase income inequality. Recent results of a cross-country study show that levels of income inequality measured by the Gini coefficient increase during periods of violent conflict and during the first 15 years of post-war reconstruction. The rise in levels of inequality is not necessarily permanent but it takes at least 20 years before levels of inequality start to decrease again, and it may take up to four decades to return to pre-war levels of income inequality if peace is sustained (Bircan, Brück and Vothknecht 2017). The scope of the rise and its characteristics depend on conflict and country-specific circumstances. A possible reason for this is that conflict disproportionately affects the poor population, especially in countries where the primary sector is still dominant, and farmers lose opportunities to sell their produce on the markets. Also, poor households have few assets that can be collateralized, and are thus obliged to take on loans to cover basic living costs when markets are temporarily not functioning. Social spending often decreases as military expenditure goes up, and the government faces challenges in raising revenues (ibid.). This may even have repercussions on health and education, and thus translate into the intergenerational persistence of inequalities (Deininger and Olinto 1999). The challenge is thus to decelerate dynamics between inequalities and violent conflict. The next section will review some policy examples that have succeeded in doing so.

COMBINING TARGETED AND UNIVERSAL POLICIES TO TACKLE HORIZONTAL INEQUALITIES

Considering that horizontal inequalities can be a cause of violent conflict, it is essential to address them in order to advance human development. Countries that suffer from violent conflict are those that have regressed most on their HDI scores during past years (UNDP 2018). Different group constellations, historic patterns of exclusion and current political settings are very specific to the local context, however, and so is, therefore, the emergence of violent conflict. Concrete policies that go beyond the ones aiming to tackle horizontal inequalities should thus not be suggested universally but designed locally and specific to that context. Since the relation between inequalities and conflict appears to be circular, space for action should be assessed carefully to identify an opportune moment for intervention. Post-conflict settlements can be one such space, because they often involve political power-sharing and could also include economic redistribution. Influence from the international community can be helpful as well when it is based on comprehensive frameworks such as universal

human rights or the Sustainable Development Goals, which can give guidelines on how to achieve universal human development (Stewart 2016b).

Policies that aim at tackling horizontal inequalities can be broadly divided into two categories. One comprises targeted policies (affirmative action) that directly support disadvantaged groups. These can include the provision of access to credit, scholarships or other benefits. This type of policy can be very effective, but there is also the risk that they further underline group differences since members receive benefits precisely *because* of their group identity. They are most appropriate when one group has been clearly historically disadvantaged (Langer and Stewart 2015, Stewart 2016b). The other category comprises universal policies. Poor and marginalized groups typically benefit disproportionately from universal policies, for example, progressive taxation, public expenditure or social protection, but also anti-discrimination legislation if this had been an issue before. Universal policies reduce inequalities more slowly, however, and may thus not be as effective for short-term conflict prevention as targeted policies (ibid.).

Most successful has been a combination of the two as shown in several examples (Stewart 2016a). In addition, integrationist policies can help countries home to many different identities to reduce fuel for conflict and create a common national identity. These policies may include, for example, requirements for or promotion of multiculturalism in schools, political parties and other public spaces, incentives for cross-group economic activities, bans on ethnic/religious political parties, and the promotion of an overarching national identity (Langer and Stewart 2015). Many times, however, data to measure inequalities between groups are missing, which impedes sufficient recognition of the need for such policies. Improving data collection can be a first step towards developing and implementing policies that reduce horizontal inequalities and foster cohesive societies.

Decelerating the dynamics of inequality

This paper has explored how inequalities in human development emerge, interact and perpetuate themselves. It has scrutinized available literature, arguing that four constitutive areas of human development are detrimentally affected by income inequality. It has found that the relation between these variables is rather dynamic because impairments in each can create more inequalities in other areas of human development. Since these are connected to one another, inequalities can reinforce each other. It was argued, for example, that poor health conditions can hinder children from learning in school, but low levels of education can also exacerbate health outcomes when people make unfavourable choices due to a lack of information. Social anxiety and stress can lead to social alienation and weak social cohesion, which together with high levels of horizontal inequalities can even increase the possibility of violent conflict. Once violence plagues a country, public military expenditure and

expenditure for mitigation crowd out government expenditure on health and education, which can intensify inequalities even further.

But the affected four areas also constitute an entry point for policies that aim at decelerating the dynamics of inequality. Table 2 summarizes policies identified throughout the paper. For example, to improve mobility in education, early childhood development programmes and parenting support can help create a fairer start for all children. Together with universal quality education and school-to-work transition policies, some of the barriers that marginalized youths face to entering the labour market can be overcome, which in turn may improve social mobility and reduce inequalities. In the area of health, redistributive policies and strong labour market institutions are necessary to reduce levels of stress and anxiety. Universal access to quality health services, including mental health care, as well as public awareness campaigns about healthy lifestyles can help improve a population's health.

To strengthen social cohesion, mingling and interaction between all groups of society can help create ties throughout the whole population. Subsidizing recreational activities such as sport clubs, public swimming pools, or cultural events and sites can foster interaction, providing opportunities to share fun experiences and memories. Once people get in touch with each other and learn about the fate and personal stories of their fellow citizens, more trust and empathy can be generated among different groups, which can enhance support for redistributive policies. Wage policies, apart from having a redistributive effect themselves, can additionally provide people of low income with the necessary autonomy to engage in political processes, supporting redistributive policies or systems. Finally, in order to foster peace and security, universal and targeted social policies should be combined to tackle horizontal inequalities that may otherwise lead to violent conflict. This requires improvement in data collection on traditionally marginalized people so that policies can more effectively target those who are otherwise left behind. Again here, it is crucial that people from different groups interact with each other to create a common identity and a sense of belonging to the same community. This way, social cohesion can be strengthened and support for targeted policies created.

Neither the analysis nor the policy options presented in this paper mean to be exhaustive, which is why the paper is called "Exploring dynamics of inequality in human development." The dynamics are highly complex and will require more research. Taking this analysis as a starting point, Chapter 2 of the *2019 Human Development Report* further expands the study of the mechanisms behind these relations, adding the importance of health gradients to the analysis on life cycle inequalities, and also looking at how the economy interacts with dynamics of inequality.

Table 2: Policies to decelerate the dynamics of inequality

Constitutive area of human development	Policies
Social mobility	—Universal early childhood development programmes —Parenting support —Universal quality education (including tertiary education) —Active labour market policies (school-to-work transition policies) —Targeted policies to support weaker students
Health	—Redistributive policies and strong labour market institutions to reduce levels of stress and anxiety —Universal access to quality health services, including mental health services and long-term treatments —Public awareness campaigns about healthy lifestyles
Social cohesion	—Foster mingling and interaction between all groups (ethnicity quotas, etc.) —Subsidize cultural and recreational activities —Wage policies to increase political participation
Peace and security	—Combine universal and targeted policies to tackle horizontal inequalities —Improve data collection on marginalized groups to effectively target those left behind —Foster interaction among all groups of society

Source: Author's elaboration.

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