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Public health and degrowth working synergistically: what leverage for public health?

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Abstract

The climate crisis represents the the biggest public health threat of our time. It interacts with the rising inequalities, chronic diseases and mental illness widely associated with capitalism. Though degrowth and public health approaches differ, both share common values. The former proposes a path for transformation intended to halt the destruction of life-supporting systems by infinite economic growth. The latter aims to maximize health and wellbeing while reducing health inequities, using strategies ranging from health protection to health promotion.

In various jurisdictions, public health is legally mandated to act when population health is threatened. Some jurisdictions have also adopted a "Health in all Policies" approach. Though public health has leadership for climate change and health adaptation planning, decisions and efforts on mitigation strategies are often left to the economic and environment sectors; several tools such as health impact assessments, healthy public policy development, and socio-economic determinants of health frameworks, are often ignored.

Utilizing a critical public health lens, we present theoretical analysis and empirical examples from Canada to discuss barriers and facilitators to achieving synergy between public health and a degrowth perspective. We argue that public health has an ethical and legal duty to lead debates around sustainable living, and to unequivocally use its leverage to support degrowth ideas. However, as long as public health networks are embedded in governmental bodies, it may be difficult to fully support social transformation towards degrowth to the extent required by the biggest challenge of our time.

Key words: degrowth, public health, equity, social and ecological determinants of health, health promotion, ecological transition, sustainable living

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Introduction

According to the World Health Organization (WHO, 2015, 2018 [1]), the climate crisis represents the biggest public health threat of our time, interacting particularly with rising inequalities, chronic diseases and mental illness. These issues are widely associated with our dominant capitalist economic system. Defined as the ability to participate in meaningful activities within the contexts of everyday life (WHO, 2001), health has historically been considered to be improved by economic growth (Borowy, 2017; Knight et al., 2013). The pathway for improved health outcomes is referred to as social determinants of health (SDOH), namely: access to healthcare services, education, housing and transport. However, for this to become a reality, a set of conditions must be met to reach the most vulnerable, including a better distribution of resources (Lange & Vollmer, 2017). Drawing on a capitalist framework, the growth paradigm neglects the social health inequalities that occur concurrently (The Lancet Planetary Health, 2019). Indeed, while economic growth has been possible in the Global North, though unevenly, we consistently observe a rise in inequalities, showing that the health benefits associated with growth might not reach populations in an equitable manner (Berg & Ostry, 2017; De Vogli & Owusu, 2015; Missoni, 2015). The ongoing COVID-19 pandemic has highlighted these inequalities in the richest countries of the world in a very crude manner (Horton, 2020).

Though there is a well-developed body of literature on degrowth theory (Weiss & Cattaneo, 2017), literature focused on health and degrowth, public health and degrowth or SDOH and degrowth is not as broad and explicit. While there may not be much evidence linking degrowth to better health outcomes (Borowy, 2013; De Vogli & Owusu, 2015), there is evidence that an economy pursuing infinite growth leads to poor outcomes (Szreter, 1997; Hancock, 2017; CPHA, 2015), such as exposure to contaminants and pollution, poor mental health and substance use, social isolation, chronic disease, and workplace burnout and injuries. The existing evidence may be sufficient to advocate against infinite growth from a public health perspective, adopting a precautionary approach (Abraham, 2019). Yet a comprehensive synthesis of the possible synergies between degrowth and public health is still lacking. Such a synthesis would be relevant to support advocacy for degrowth ideas by public health actors.

The aim of this paper is thus to explore theoretical and empirical evidence concerning the relation between degrowth and public health. In the following sections, we will 1) introduce our perspective on degrowth and public health, 2) identify synergies between degrowth and public health and discuss why and how public health networks, particularly in the Canadian context, should embrace a degrowth perspective, and 3) illustrate barriers and facilitators to this integration by providing practical examples from Canada, including one Indigenous jurisdiction. We will conclude by providing brief preliminary thoughts on the potential impact the COVID-19 pandemic could have on these synergies.

Situating our perspective: our perspective on degrowth

The explicit call for a sustainable 'degrowth' emerged as a response to the sustainable 'development' ideology and was initiated in France in the early 21st century (Duverger, 2011; Parrique, 2019; Parrique et al., 2019). This call reached the province of Québec (Canada) in the middle of the 2000s, perhaps because of the close relationship this province has with France. In 2007, the Mouvement Québécois pour une Décroissance Conviviale (MQDC; Québec Movement for a Convivial Degrowth) was created and led to various research and scientific activities. From these activities, a new and original perspective of degrowth arose with a relatively 'à la québécoise' accent. Originally framed according to the French degrowth movement, the Québec perspective now takes its grounds into various philosophical perspectives (Abraham, 2019), namely André Gorz's political ecology (1980), the critique of technosciences (Günther Anders, Jacques Ellul, Bernard Charbonneau) and the industrial society (Jorge Semprun, Ivan Illich, Lewis Mumford), as well as a neo-marxist critique of capitalism (Guy Debord, Robert Kurz, Moishe Postone). To those influences we could add the feminist (Nancy Fraser, Sylvia Federici, Sally Scholz) and animalist perspectives (Valéry Giroux, Will Kymlicka & Sue Donaldson, Corine Pelluchon).

Our article will mainly be drawing on a Québec perspective of degrowth. In this perspective, the

growth ideology is criticized for three main reasons (Abraham et al., 2011; Marion, 2015; Abraham, 2019; Polémos, 2020). First of all, growth is accused of being destructive, not only for what is called 'nature', but also the very societies it continues to threaten. Second, growth is blamed for being intrinsically unequal and unjust, with regards to either intergenerational relationships, but also among actual generations or between animal species. Those injustices are considered a consequence of growth, but also a condition for growth to be possible. The third and last reason best illustrates how the Québec perspective differs from the predominant barcelonian approach to degrowth which prevails in academic spheres; it criticizes growth for being alienating. In that sense, growth is arguably transforming humans into instruments of use within broader technical and economic macro-systems on which it relies. As means of our own tools, using the words of Henry David Thoreau, we no longer have the possibility to decide how to organize our ways of living together.

Degrowth is seen as a phase of a wider transformation toward post-growth societies, relying on three combined and intertwined principles: produce less, share more, decide together (Abraham, 2019; Polémos, 2020). The matter is therefore to promote more sustainable, just and democratic ways of living. To put these principles into action, the requirements are: 1) relocation of the means of producing the goods and services we need toward self-subsistence goals, 2) orchestration by local municipalities using direct democratic principles, 3) Low Tech, i.e. techniques of production that are controlled and activated by resources, energetically available at the local level, 4) 'commons', i.e. self-managed collectives, constituted with a self-production mindset and whose members share use and decisions over the means of production (Abraham, 2019). Finally, one of the main concerns of the Québec degrowth perspective is to marginalize or abolish private companies, which are at the core of growth societies (Solé, 2015).

A critical public health lens

In addition to a Québec perspective of degrowth, our contribution is aligned with a critical theoretical perspective of public health. Critical public health is both a practical and theoretical perspective that seeks to challenge dominant and mainstream discourses in public health (Green & Labonté, 2007). Originally labeled as radical community medicine or community health, critical public health questions issues of power in medicine and health sciences, advocates for participative democracy and active community engagement in public health, while also calling for actions on the social determinants of health. The paradigm of critical theory (Guba & Lincoln, 1998) has become more and more popular in the field of public health, with researchers and practitioners seeking to understand experiences of health and illness by proposing alternative paths to the dominant postpositivist paradigm. According to Guba and Lincoln (1998), critical theory is an alternative research paradigm that includes feminism, neo-Marxism, queer studies, and postmodernism (poststructuralism, postcolonialism, anticolonialism). By critically appraising principles of public health imposed as regimes of norms and truths by means of governmentality (Foth & Holmes, 2018), critical public health scholars propose alternative paths to the mainstream biomedical discourse.

In this paper, this perspective will be of particular use to challenge and interrogate the discourses surrounding the health benefits of economic growth which are almost self-evidently imposed as uncontestable 'truths' (Szreter, 1997). A critical public health perspective also allows to recognize the unequally deleterious effects of capitalism and colonialism on the lives of women, black, indigenous, and people of color (BIPOC), LGBTQ+ communities, as well as people with disabilities (Green & Labonté, 2007). Consistent with a degrowth perspective, critical public health scholars often advocate for a decolonial approach of global health development goals, thereby questioning growth-based and unequal North-South relationships (Büyüm et al., 2020). For example, De Vogli and Owusu (2015), two critical public health scholars, clearly connected degrowth and public health by introducing the notion of 'healthy de-growth' as a response to the causes of the Great Recession of 2008 and the collateral effects of neoliberalism. Using data from developed and developing countries, these authors argued that despite the negative immediate outcomes related to those recessions in both areas, the policies introducing a more equal redistribution of wealth and social protection led to an increase in life expectancy in developing countries, due to reduced unemployment and suicide indicators – what De

Vogli and Owusu describe as a healthy degrowth. In that sense, the authors seek to challenge and de-link the traditional association between public health and economic growth, while also showing that public health and degrowth can be synergetic. The next sections will provide some examples of these synergies.

Synergies between degrowth and public health: de-linking public health with economic growth

Various authors have described the negative impacts of economic growth on population health, while others suggest different synergies between public health and degrowth, including in the mainstream public health literature. For instance, the Lancet Commission on Planetary Health questions the benefits of economic growth on the health of people and the planet (The Lancet Planetary Health, 2019). It even equates the low-energy demand scenario of the Intergovernmental Panel on Climate Change (IPCC) Special Report on Global Warming of 1.5°C to "a planned reduction in the material and energy throughput of the global economy; what is sometimes referred to as degrowth".

In its 2015 position paper titled *Addressing the Ecological determinants of health*, the Canadian Public Health Association (CPHA, 2015) states that affluence beyond the meeting of reasonable needs becomes a negative force. It stresses that gross domestic product (GDP) is a poor indicator for wellbeing, and for equity; GDP fails to account for harmful impacts of economic activity and excludes contributions to social welfare that are non-monetized. Though not explicitly supporting degrowth, its authors are aligned with what many scholars have described since the report "The Limits to Growth" (Meadows et al., 1972): the fact that economic growth and development are key human forces driving changes in ecosystems, and that indefinite growth of resource consumption in a finite system, such as Earth, is not sustainable. In their view, the public health network is essential to catalyzing the transformations needed to reverse the severe ecological changes associated with our consumption patterns; they call for public health to act on the ecological determinants of health – oxygen, water, food, and other vitally important ecological processes and natural resources – and to challenge power and policies created by corporations, using legitimate confrontational strategies in protecting the health of populations and Earth's natural systems.

In the *Planetary health manifesto*, Horton et al. (2014) write: "Our patterns of overconsumption (…) will ultimately cause the collapse of our civilization. The harms we continue to inflict on our planetary systems are a threat to our very existence as a species". He points at neoliberalism and globalization as drivers of inequities and calls for "(...) a new principle of *planetism* and wellbeing for every person on this Earth - a principle that asserts that we must conserve, sustain, and make resilient the planetary and human systems on which health depends by giving priority to the wellbeing of all". He adds that the voice of public health is critical in achieving this vision.

Linking public health with alternatives to growth

At its 2018 annual conference, CPHA (O'Neill, 2018) hosted a presentation titled *LIVING WELL WITHIN LIMITS*. The presentation is summarized here:

> "There are very large health costs to our current way of life, and thus very large potential health benefits from a shift to a more sustainable society. What changes would be needed to achieve a sustainable economy within planetary boundaries in recognition of the relationships between resource use and human wellbeing? What role can public health play(...)? While economic growth is the dominant mantra in wealthy nations, there are a number of good reasons to question this perspective."

This shows some interest of the public health community in discussing changing paradigms on our current economic system. Missoni (2015) argues for global governance for health and leadership by the WHO, recommending that public policies in all sectors be formulated taking into consideration their impact on health. "To support degrowth and health, a strong alliance between committed national and global leaderships, above all the WHO, and a well-informed, transnationally

interconnected, worldwide active civil society is essential to include and defend health objectives and priorities in all policies”.

In the recent book *Health in the Anthropocene*, Aillon & D’Alisa (2020) argue that a growth-based economy is unsustainable from a health perspective, calling for degrowth as a path to act on the principal determinants of health: "Because growth is based on the unlimited exploitation of natural and human capital - causing the increase of inequalities, climate change, pollutions and promoting unhealthy lifestyles related to consumerism (…) - a transition to a degrowth system is necessary in order to protect and promote the health of present and future generations”.

Thus, more and more public health literature points toward the need for overcoming economic growth, emphasizing the public health gains envisioned from adopting a degrowth approach, as well as the need for strong public health involvement to achieve the transformations proposed by degrowth.

Convergence between degrowth and public health values

Degrowth and public health share common values. Indeed, some core values of public health have been defined as social justice and fairness, collective action, empowerment and participation of communities (Horton et al., 2014). Its objectives are to protect and promote health and wellbeing, to prevent disease and disability, to eliminate or mitigate conditions that harm health and wellbeing, and to foster resilience and adaptation, while reducing inequalities in health resulting from unjust conditions.

Based on the logic of ‘’commons’’, a degrowth perspective struggles to create links between diverse groups sharing common values such as conservation of life on Earth by reducing consumption of natural and energy resources; justice towards all living beings; and emancipation and collective autonomy (Abraham, 2019). Indeed, degrowth proponents promote a voluntary, soft and equitable transition towards a system with less production and consumption (Demaria et al., 2013). In order to achieve the above, Borowy & Aillon (2017) propose: to reduce socio-economic inequality by redistribution through maximum and basic income (Alexander, 2014); to translate increased productivity to fewer working hours and more free time while also promoting a reduction of unemployment (De Vogli & Owusu, 2015); to relocalize economic life by bringing production closer to consumers, while encouraging “low-tech” (Alexander & Yacoumis, 2018); to acknowledge and expand non-commercial forms of work---including care--- and product exchange (Abraham, 2019); to reduce waste and material consumption (Latouche, 2010); and to promote different forms of social interaction, such as urban gardening, cohousing and eco-communities (Nelson & Edwards, 2020), as well as creation of commons, i.e. self-managed collectives whose members equitably share the means of production (Berkes, 2018). In short, degrowth suggests placing human needs at the center of the system, while reducing the economy to a means to achieve full realization of human beings with the goal of respecting biosphere limits (Aillon & D’Alisa, 2020).

Among these proposals, redistribution to reduce socio-economic inequality is the most obviously linked to public health goals (WHO, 2008). Though taxation is the most common redistributive measure, one proposal that is gaining visibility is guaranteed basic income (GBI), which has been advocated for by several public health authorities for decades as a way to reduce health inequities (Forget, 2011; BMJ, 2016). GBI, by decoupling revenue from work, could allow for individuals to engage in meaningful activities such as caring for friends and relatives, connecting with neighborhoods and natural environments, producing their own goods, and being more physically active, while avoiding work in precarious situations under the threat of unemployment. The few experiments on GBI showed improvements in health (Forget, 2011; BMJ, 2016). Interestingly, the idea is regaining attention in Canada as a way to mitigate the deep social and financial consequences of the COVID-19 pandemic (UBI works, 2020). Several health associations have endorsed the idea, including the Canadian Medical Association (CMA,2015), the Canadian Public Health Association (CPHA, 2017), and the Chronic Disease Prevention Alliance of Canada (CDPAC, 2020).

While remaining largely ignored, a key component of degrowth theory is the reduction of work

hours (Knight et al., 2013; Schor, 2014). The argument is that decreasing the global productive occupations would reduce the overall consumption capacity, diminish the needs of production, thereby leading to reduced work hours (Schor, 2005) as well as reduced unemployment (De Vogli & Owusu, 2015). This would in turn contribute to reducing greenhouse gas emissions (Nässén & Larsson, 2015). While conducting to reduce unemployment by allowing more people to work (De Vogli & Owusu, 2015), fewer working hours is also associated with more leisure time (Cui et al., 2019; Jones & Klenow, 2016). Across the globe, reducing work hours to increase leisure time has been pursued as a path to happiness, quality of life, wellbeing and health more broadly (Fleck, 2009). In addition to representing an effective way to reduce air pollution (Nässén & Larsson, 2015), multiple synergies can be found between reduced work hours and public health (Cho et al., 2018; von Thiele Schwarz et al., 2008; Wong & Ngan, 2019).

To support these synergies, public health professionals can turn to studies on work-life balance (Wagman & Håkansson, 2019), which has been defined as the perception of having the right number of occupations and the right variation between occupations. Many studies have reported that improving work-life balance introduces health benefits (Wilcock et al., 1997), such as reduced stress (Yu et al., 2018), improved wellbeing (Douglas, 2006), improved mental health (Eklund et al., 2019), and a higher quality of life (Park & Park, 2019). While strategies to promote work-life balance have traditionally been operationalized through individual self-management programs (Wagman et al., 2015), such efforts might reproduce neoliberal individualistic values (Clouston, 2014). In targeting solely individual behaviors, these programs might not allow to reduce inequities in work-life balance across social groups, thereby contributing to health inequities (Wagman & Håkansson, 2019). Consistent with degrowth theory (Knight et al., 2013), strategies aimed at reducing work hours must be operationalized at a collective level through laws and policies (Clouston, 2014). The most popular option is the four-day week (Autonomy, 2019; Walker & Fontinha, 2019). One important benefit of this model is increased worker efficiency (Pencavel, 2015), namely due to reduced days of sick leave (Walker & Fontinha, 2019). Other outcomes include increased quality of life, improved work happiness and reduced work-related stress (Autonomy, 2019; Walker & Fontinha, 2019).

Pathways for public health networks to embrace a degrowth perspective

While the climate crisis is a starting point to discuss the links between degrowth and public health, it is only one aspect of the global ecological crisis. Other crises, closely related to planetary boundaries (Steffen et al., 2015), include ecotoxicity (pollution), resource depletion, species extinction and ocean acidification (CPHA, 2015). Their apprehended health impacts are less clear, but quite real. These interacting crises are also closely linked to the dominant consumer-extractivist paradigm; this paradigm must therefore be challenged, since it largely contributes to shaping global and local health inequities.

The rationale for public health interest in degrowth can be summarized by the following elements: direct and indirect negative impacts on health associated with economic development (pollution, climate change, etc.); inequities associated with the dominant economic paradigm, and failure of our “traditional public health approaches” to reduce these inequities; and intergenerational inequities (degradation of health determinants for future generations).

For public health to embrace and promote a degrowth perspective, its legitimacy to orient the decision-making process, and the shift in social norms, must first be established. Increasingly, voices recognize the role of public health. Some have clearly expressed their desire to see public health at the forefront of the decision-making process (Lang & Rayner, 2012): “Public health success is as much about imagination as evidence: challenging what is accepted as the so-called normal, or business as usual. Public health must regain the capacity and will to address complexity and dare to confront power”. According to the CPHA (2015): “Public health should join others in working towards a fundamental shift in the values and social norms (…) to address the emerging ecological crisis. (…) Public health organizations and practitioners need to listen to and learn from those already working toward alternative, more positive futures, and to foster alliances with other efforts that demonstrate socio-ecological approaches to the health of present and future generations”. More recently, Poland

et al. (2020 [1]) have called for a changing role for public health in the Anthropocene "(…) to reconsider what actors, which knowledge and evidence are needed", in the form of "unusual allies", calling for recognition that "powerful vested interests frequently are mobilized to block changes designed to bring about greater social equity and ecological sustainability".

Also, as will be demonstrated below, both degrowth and public health call as much for action on public policy as for participation of citizens and grassroots movements in health and social decision-making, promoting change from a bottom-up perspective through empowerment of communities (WHO, 1986; Illich, 1995). WHO has repeatedly demonstrated how community participation results in substantial health gains and promotes the approach, while acknowledging that "the actual capacity of communities to participate in defining and implementing health agendas has been limited by resource constraints, entrenched professional and social hierarchies, and public health models focused on individual behaviors and curative biomedical interventions" (WHO, 2013 [1]). Promotion of social connectivity and resilience are also central to both movements. One approach that has been supported by public health actors is the Transition movement (Poland, 2020 [2]), and though its health impacts still need to be demonstrated, Poland argues that true societal change is more likely to happen through grassroots movements (Poland, 2020 [2]).

Enacting public health's legal mandate toward degrowth

In various jurisdictions, the governmental public health network is legally mandated to act when population health is threatened (Gouvernement du Québec, 2020). As we have seen in the case of a sanitary crisis such as the ongoing COVID-19 pandemic, the public health network, through its Chief medical officer of health, has the power to impose and enforce measures on individuals to protect the population against an imminent threat.

To promote public health even in the absence of an imminent threat, some jurisdictions have adopted WHO's "Health in All Policies" framework: *"an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity"* (WHO, 2013 [2]). In order to achieve this, an important tool is called the Health Impact Assessment (HIA). It is defined as a combination of procedures, methods and tools by which a policy, a program or a project can be judged or evaluated on the basis of its potential effects on the health of a population (NCCHPP, 2020). HIA is most frequently used to assess proposals outside of the traditional health sector, and which do not target health. The approach attempts to estimate, with the help of contextual and scientific information, the possible effects on health and wellbeing, with a goal of minimizing the negative effects while maximizing the positive effects. The HIA process is gaining in popularity in Canada but is hindered by insufficient resources and political will to let the public health sector play the important role it should exert in the policy making process (Nour et al., 2019; Buregaya et al., 2019; 2020).

In Canada, public health is under provincial jurisdiction (Government of Canada, 2020). Exceptions exist for specific populations such as prison inmates, military, refugee claimants and most indigenous communities, with some jurisdictional heterogeneity in the latter group when it comes to health and public health systems. Also, in some provinces, socio-sanitary regions have the responsibility for providing public health services, while in others it is a municipal role.

In the province of Québec, article 54 of the Public health act (Gouvernement du Québec, 2020) is a strong legal tool for implementing a Health in All Policies (HiAP) approach. It gives power to the health sector to intervene when policies formulated by other ministries are seen prospectively as having a potential negative impact on population health. This approach seemed very promising when it was first proposed, but it rapidly encountered numerous barriers (Benoît et al., 2012). In particular, ministries and governmental agencies with an economic mission showed limited adherence to the principles of the approach. They also demonstrated a lack of knowledge of the social determinants of health. These barriers have been slowly overcome with awareness and education campaigns on the process, as well as a shift towards earlier consultation.

Lastly, the precautionary principle, a powerful tool already included in some public health

legislation, needs to be applied to the ecological determinants of health (CPHA, 2015). The precautionary principle lies on the rationale that when there are potentials for causing harm associated with a certain situation or intervention, the decision should emphasize caution, pausing and review before undertaking new intervention that may well prove disastrous (Kriebel et al., 2001). In the same vein, when evidence is not available in an emergency context where the risks are imminent, we should not wait for further evidence to be provided prior to undertaking low-risk interventions. As it was the case during the COVID-19 pandemic, decision-makers often had to choose between several options while there was no available evidence for their effectiveness at a given time and, based on the precautionary principle, had to rely on the less damageable option. Though it has been criticized for being too vague or unscientific and for canceling new advances and progresses, this rationale could be used facing the ecological crisis, and in the same manner, degrowth could be seen as a cautious option to prevent further damage (Kriebel et al., 2001).

Drawing on key public health frameworks

Public health practice is reliant on theoretical frameworks to orient interventions and strategies. As will be described below, several frameworks could help justify why public health should promote degrowth. One of the most basic frameworks is a stepwise prioritization that helps choose which interventions are most likely to have a positive impact on population health (Pineault & Daveluy, 1995): 1) how important is the problem, 2) how severe are its consequences, 3) how much is known about solutions, and 4) how feasible are solutions. Depending on the weight attributed to these four criteria, a problem will be either prioritized for intervention, prioritized for research on effective intervention, or dropped altogether. When applied to the planetary crisis, this framework suggests that 1) there is little debate about the magnitude and severity of the health consequences of the problem (WHO, 2015, 2018 [1]; United Nations, 2020); 2) there is much less consensus about degrowth as an effective and feasible solution. Therefore, according to this framework, promoting degrowth as a pathway for solving population health problems linked to the planetary crisis would need to build on a stronger evidence base.

Perhaps the most well-known public health framework, the Ottawa Charter for Health Promotion (WHO, 1986), has been conceived as a powerful tool to address system change, and has been acclaimed by degrowth scholars (Aillon & Dal Santo, 2014; Borowy & Aillon, 2017). Since it was introduced in 1986[1], it has stated the following prerequisites for health: peace, shelter, education, food, income, a stable ecosystem, sustainable resources, social justice and equity. However, despite great promises, more than 30 years into the Ottawa Charter, we are still waiting for most of these prerequisites to be implemented broadly. In the same vein, the vocabulary used in the framework may sometimes reproduce a growth ideology, drawing on a sustainable development discourse, rather than a degrowth perspective.

Later on, the Marmot commission (WHO, 2008) reinforced the importance of action on the SDOH to improve population health and, more importantly, health equity. Its extensive analysis led to three main recommendations:

1. Improve the conditions of daily life – the circumstances in which people are born, grow, live, work, and age.
2. Tackle the inequitable distribution of power, money, and resources – the structural drivers of those conditions of daily life – globally, nationally, and locally.
3. Measure the problem, evaluate action, expand the knowledge base, develop a workforce that is trained in the SDOH, and raise public awareness about the SDOH.

While improving conditions of daily life and tackling unequal distribution of power, money and resources may seem consistent with a degrowth perspective at first blush, it could nevertheless be used and remain within the boundaries of a growth ideology. Therefore, one could be critical of the real implications of this framework if it has to lead to a profound transformation toward a post-growth

[1] Approximately 40 countries committed to the Ottawa charter.

society, and should perhaps be complemented with other degrowth theories, such as those described above.

The Dalhgren-Whitehead framework, one of the most widely used determinants of health frameworks (fig.1), further illustrates the importance of general socioeconomic, cultural and environmental conditions as proximal determinants of health. The Population and health promotion model (fig.2) combines the SDOH framework with the dimensions of the Ottawa Charter, adding the different levels of intervention relevant to public health. These frameworks position public health intervention within its broader context and highlight the importance of upstream action for effective public health intervention.

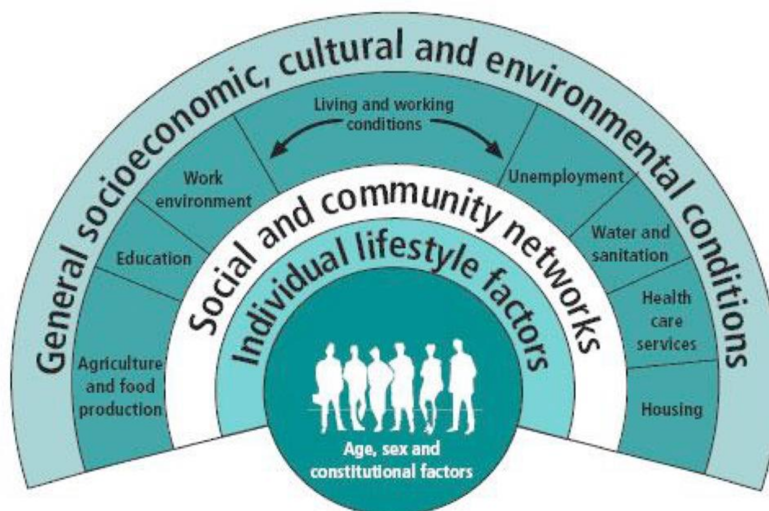

Figure 1. The Dahlgren-Whitehead determinants of health framework (Dahlgren & Whitehead, 1991)

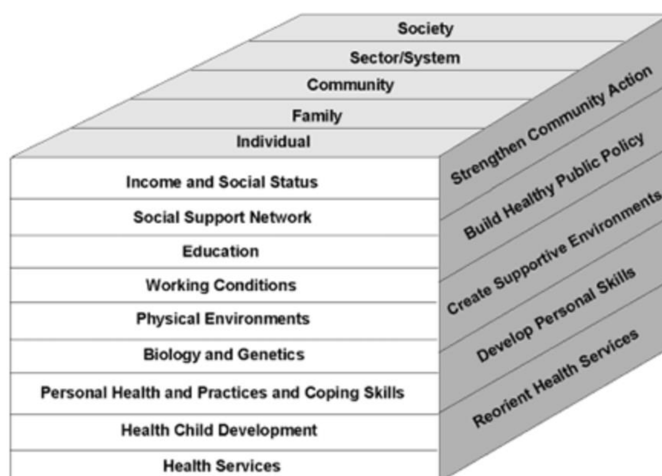

Figure 2. Population and health promotion model (Health Canada, 2001)

Finally, the WHO 2016 Shanghai declaration is an updated version of the Ottawa charter for health promotion (WHO, 2018 [2]). It reiterates the need to make health a central line of government policy, advocating for a *Health in All Policies* approach. It also emphasizes the importance of social mobilization: "Engaging and galvanizing people, (...) to take action towards the achievement of good health and wellbeing in a way that gives ownership to the community; (…) members of institutions, community partners and organizations, and others collaborate to reach specific groups of people for

intentional dialogue. Social mobilization aims to facilitate change through an interdisciplinary approach." (WHO, 2018 [3]). Interestingly, though it is directly aligned with the sustainable development goals (SDG)s, that include goal eight "to promote sustained, inclusive and sustainable economic growth" (United Nations, 2015), the Shanghai declaration also claims that "People's health can no longer be separated from the health of the planet and economic growth alone does not guarantee improvement in a population's health", and as "powerful commercial forces work to counteract health, (...) governments have a fundamental responsibility (...) to address the damaging effects of unsustainable production and consumption. This includes offsetting economic policies that create unemployment and unsafe working conditions, and enable marketing, investment and trade that compromise health." Although we could read a tentative criticism of growth, the intention is not yet to embrace a degrowth perspective. Again, it could be argued that complementing those public health frameworks with other post-growth social and economic theories would be essential to achieve sustainability and health.

As we can see, the WHO health promotion framework has evolved with time, and its implementation has undoubtedly faced enormous challenges, due to powerful adverse forces. The paradox of WHO's ongoing support for SDGs, including the goal of economic growth, is obviously debatable, and has indeed led to a certain distrust from degrowth scholars (Abraham et al., 2011).

Examples illustrating existing or potential synergies

In this section, we illustrate how the theoretical analysis outlined above can be applied to public health interventions through examples taken in urban, rural, and Indigenous context of the province of Québec, Canada.

1. Urban setting: Montreal

The Montreal regional public health department (MPH) serves a diverse urban population of nearly two million. MPH has a long history of action on the SDOH; reducing health inequities has long been an organizational priority (Lessard, 2012; Massé, 2015). As in many cities across Canada, poverty and income inequality are fundamental drivers of several of the most pressing public health issues in Montreal, including food insecurity and housing affordability. MPH has, for several decades, provided financing to support community-based initiatives in the domains of sustainable development and food security (DRSP, 2019). More recently, MPH has contributed to developing a public health perspective regarding minimum basic income (Massé, 2017). Although health inequities have been clearly and repeatedly identified as a public health priority (Massé & Desbiens, 2017), the need for fundamental change in the economic system has not been articulated from a public health perspective.

The case of *Bâtiment 7*, a project whose development was supported financially by MPH, provides an example of an alternative, community-based approach to local economic development. The project's mission statement includes notions of accessibility, self-reliance, resource-sharing, democratic management, social justice and collective engagement, many of which echo fundamental tenets of degrowth, in line with the concept of commons (Bâtiment 7, 2018). This project illustrates one of the ways in which a public health unit can contribute to a bottom-up approach to challenging the dominant economic paradigm.

A second example of a public health approach that is convergent with a degrowth framework is in the domain of transport (Cristiano & Gonella, 2019). MPH has long called for a reallocation of space and resources from private vehicle transport to active and public transport, putting forward a vision where the collective is prioritized over the individual, both in the interest of individual and population health (DRSP, 2020), namely by proposing promising interventions, publishing public advisories, and participating in public consultations. MPH works in collaboration with city councilors and community organizations to promote wide and safe use of bicycles, and urban development that promotes connectivity of public transportation with cycling paths and walking routes (DRSP, 2020).

The MPH example illustrates the convergence of public health objectives to reduce health inequities with several of the proposals of degrowth, such as the orchestration by local municipalities

using direct democratic principles as well as the logic of commons central to the Québec perspective (Abraham, 2019). However, in order to move towards a more systemic perspective on the economy as a determinant of health, the public health benefits of various approaches to the issue (economic growth, wealth redistribution, etc.) need to be exposed and revisited.

2. Rural setting: Gaspésie

Similar convergences are also emerging in rural areas, where health inequities are also a major public health issue. In the Gaspé peninsula of the province of Québec, over a third of the population lives in an area qualified as a food desert, showing that access to healthy foods and services can be limited, especially for households with reduced mobility due to financial or health issues (Robitaille & Bergeron, 2013). In order to answer this issue in Haute-Gaspésie, Québec's poorest county (ISQ, 2018), a series of public consultations were organized in 2017 by the county's integrated approach to social development actors, with support from the Gaspésie regional public health department (GPH). Under the name of *Nourrir Notre Monde* (Unpointcinq, 2019), the consultation quickly became a community-based movement, as local actors were not only conscious of the food security issue but ready to act. Two years later, the movement involved municipalities, social development actors, school boards, food producers and processors as well as consumers. Together, they now work on the development of local food production efforts, including community gardens and kitchens, school gardens, food recuperation, various training or skill exchange opportunities; they also facilitate the emergence of new commercial producers. The GPH has offered logistic and professional support to the movement as efforts to develop food security and community resilience have a strong potential to contribute to the health of the county's population.

The impacts of the movement are now also touching other determinants of health. Because many local communities are also at risk of isolation due to coastal erosion, the *Nourrir Notre Monde* movement has received funding from a climate change adaptation and mitigation program. Improved food autonomy is also an important factor in community resilience to the impacts of climate change, be they extreme weather events or the increased cost of food supplies (IPCC, 2019). Their community-based approach is also seen as a social innovation that will help develop rural communities' climate resilience.

Although this development is still recent in Haute-Gaspésie, it will be interesting to observe over the years how this movement, and similar ones emerging in other rural communities, will become a basis to discuss the impacts of the economy on resilience and health, while maintaining a priority on practical answers to social inequalities.

As was shown in both examples, certain public health actors have some degree of margin of action to implicitly support social movements, adopting a bottom-up approach, rather than taking an official posture, with a top-down approach, that would go against its political leaders.

3. Indigenous context: the James Bay Cree region of Québec

In Canada and globally, various forms of colonialism have perpetuated violence that proved outrageously damaging for the health of native populations. Colonialism is intrinsically connected to a growth dynamic, in which an ever-growing extraction of human and natural resources benefits only the colonial force to the detriment of colonized populations. Drawing on the work of Frantz Fanon, post-colonial scholars have put forward decolonization as a way to liberate colonized populations from their colonial oppressors (Gibson, 2011), thereby challenging the idea of infinite growth. The inherently unequal growth underlying colonialism and its deleterious public health consequences provide a unique lens to analyze degrowth from a decolonial perspective. To this effect, we will turn to the case of the James Bay Cree region, in Québec (Canada).

In Canada, several Indigenous worldviews have a lot in common with a degrowth perspective. Indeed, just as Aillon & D'Alisa describe it (2020), "the degrowth approach does not oppose mankind to nature through a logic of absolute domination and control (without limits), but sees human beings as part of nature itself, in harmony with it. It promotes a reconceptualization of health that takes into account care and respect for the environment and all beings". This view is consistent with a Cree

conception of health and well-being that perceives living beings as an integral part of their natural surroundings: “If the land is not healthy, how can we be?” (Adelson, 2000). Also, the concept of commons, though it has been undermined in recent years due to pressures linked with accelerated development needs, is still very much practiced in many indigenous traditions (Berkes, 2018).

The Cree First Nations of Eeyou Istchee in Québec were the first Indigenous Peoples in Canada to sign a modern treaty with both the provincial and federal governments (Gouvernement du Québec, 1975). Still, while emphasis is made on protecting the land and its living inhabitants, the Cree worldview is not as central to the development model as one might think. Though the Cree population oppose a vision of land and resource planning made without their participation, consent is often constrained by development goals and needs for job creation (Cree Nation Government, 2010, 2011). They are not alone: Indigenous leaders all over the world are often compelled to adopt the capitalist paradigm under neo-colonialist pressures (Carlson, 2008; Loppie, 2017).

The environmental and social impact assessment process (ESIA) was created with the James Bay and Northern Quebec Agreement in 1975 after the Cree First Nations of Eeyou Istchee fought for their rights during the hydro-electric project of La Grande river (Cree Nation Government, 2020 [1]). It codifies the specific recognized rights of Indigenous peoples, whether territorial or cultural, with the goal of preserving their autonomy and including them in the region’s economic development while protecting their traditional harvesting activities (Gouvernement du Québec, 1975).

The public health sector is involved in the ESIA process, providing recommendations within its traditional areas of expertise, i.e. physical health impacts triggered directly by project-induced environmental change, and social determinants limited to those aspects of health and wellbeing that the project proponent directly controls - for example, employment opportunities and workers’ health and safety (Robinson et al., 2017; Noble & Bronson, 2005). Public health is more often than not suggesting strategies to mitigate the negative impacts of a project, with very limited power to halt a project. For example, in the past years, despite increasing evidence of cumulative impacts of development projects (JBACE, 2016), the public health sector has only been able to support the halt of a uranium mining project (BAPE, 2014), based on its anticipated negative health impacts. Thus, public health may have undermined its credibility within populations that feel they are not being properly protected from the effects of resource extraction (Niezen, 2016).

In a way, the ESIA’s unique framework for community participation based on early engagement, trust, respect and transparency (JBACE, 2019) could be a strong facilitator for engaging dialogue around a degrowth perspective. Though its influence is limited due to its numerous actors and credibility issues, the public health sector could play a stronger role in ensuring the participation is made in a thorough, respectful and equitable manner, ensuring that the Cree vision of health and wellbeing outlined above is at the center of the process.

Conversely, degrowth proponents may benefit from adopting indigenous worldviews more explicitly and could hence gain more popularity within indigenous jurisdictions that are for historical reasons distrustful of any theory brought by the “White man”. This would be coherent with the recent proposal to “decolonize degrowth” (Nirmal & Rocheleau, 2019; Büyüm et al., 2020).

Remaining barriers and the potential for leverage

Public health is networked with all levels of government as well as NGOs, the private sector and civil society. However, it has not recently been at the forefront of debates on societal change towards a more sustainable way of living, and on degrowth theory in particular. It could be that, in health promotion, public health actors are not the leaders, but rather they support or partner with communities (Litvak, 2016). Their voice is silent; this makes them less threatening but could render it difficult to make significant gains in a timely manner.

Public health is still seen as technocratic and not involved in shaping the big picture: « Political pragmatism, opportunism, and so-called realism about what is feasible within the balance of forces are features of public health history » (Lang & Rayner, 2012). Therefore, though public health has leadership for climate change and health adaptation planning, decisions and efforts on mitigation

strategies are largely left to other sectors, despite the existence of the several tools described above (Bélanger et al., 2019).

Some explanations for this may be that, as mentioned above, the credibility of public health networks in certain jurisdictions has been undermined by apparent inaction. Chronic underfunding and, more recently, severe budgetary cuts in Quebec and other Canadian provinces, are likely central to this perception (Guyon, 2017). In some provinces, the independence of Medical Officers of Health has been eroded by a form of muzzling (Guyon, 2017). Also, many scholars see public health actors as "lesson-givers" and do not understand well the concept of health promotion (Brown, 2018).

Public health has a much longer history than degrowth and may very well be more reluctant to embrace new paradigms. Though the precautionary approach is often invoked, public health largely relies on evidence-informed decision-making. The mere fact that there is paucity of evidence in favour of degrowth approaches is likely to remain a significant barrier to integrating degrowth theory into public health practice. It may be time to nuance the evidence-based paradigm by taking into account the context surrounding the impacts of economic growth on ecosystems and population health and to embrace other forms of knowledge, including Indigenous perspectives, thus allowing us to bounce forward into a new era (Holmes, 2006).

Conclusions

Public health has the necessary tools to engage in debates around sustainable living, and to unequivocally use its leverage to support social movements aiming at the necessary radical changes, including degrowth. Public health must therefore be central to decision-making about energy policies, industrial development, redistributive mechanisms, and social change. However, barriers remain for the public health network to act as a voice on the ecological determinants of health, as a part of their all-encompassing framework, i.e., physical health impacts, social health impacts, and planetary health impacts.

Since degrowth proposes a transformation towards healthy alternatives for sustainable living, public health should become a strong supporter of its vision. In the midst of the COVID-19 pandemic, public health is no longer working in the shade. The crisis has highlighted the legitimacy, expertise and relevance of public health intervention. However, the usual perception that public health is all about infectious disease control, without legitimacy to intervene on public policy and economic factors, may be reinforced. Still, now that the world is turning to public health experts for guidance (Leblanc, 2020), they must seize the opportunity to speak up against conditions and decisions that are likely to lead to poorer health in the long run, particularly at a time when world leaders are already reflecting on post-COVID-19 strategies to revive economic growth. Already, several public health and, more widely, health professionals are calling on world leaders to position public health at the center of the process (Marin, 2020).

The post-COVID-19 transition may well be an opportunity not to be missed to underline the synergies between both perspectives. However, as long as public health networks are embedded in governmental bodies, it may be difficult to fully support transition towards degrowth to the extent required by the biggest challenge of our time.

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