

**OTHER WORLDS ARE POSSIBLE :**  
**My Guide To Anti Capitalist Politics**  
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## **FOREWORD**

This Major Paper fulfills the requirements for the completion of the Master in Environment Studies ((Planning) degree at York University. This paper embodies the coursework, fieldwork, and research that I have undertaken throughout the Master of Environmental Studies program at York University. My major paper is the result of a learning journey at York University that explores sustainable development, planning, energy and the environment. It is also the product of my Plan of Study that takes an interdisciplinary approach to Energy Planning. As climate change is one of the greatest challenges facing the world today, my Plan of Study examined how to make a gradual shift to more energy-efficient systems that makes greater use of urban planning practices and policies which promote collective action, democratic and accountable governance structures which actively challenge the economic pursuits of urban elites and coalitions. The three components of my area of concentration: Energy Systems, Urban Planning and Climate change governance and policy contributed to a holistic understanding of climate change planning with a focus on the energy dimension. While conducting preliminary research for my Major Paper Proposal, I stumbled upon the book *Green Capitalism: The God That Failed Us* by Richard Smith (2016). This book radically changed the direction of my Major Paper. I realized that if we switched from fossil fuels to renewables like solar and wind, we won't necessarily be on the road to sustainability. Only 7% of global greenhouse gas (GHG) emissions come from electricity generation and 25% including heat because GHG emissions are produced across the entire economy (Smith, 2016). Thus I broadened my to examine how the environmental crisis might be a result of capitalism. Attempts to overcome the environmental crisis must be grounded in the understanding how our socio-economic system and the environment function together.

## **ABSTRACT**

Capitalism as a global economic and social order is failing most citizens across the world. The current neoliberal capitalist model is committed to limitless growth based on ecological destruction, extreme levels of social inequality, the erosion of democracy and the dismantling of the welfare state. Citizens around the world have become increasingly conscious and critical of the failures of capitalism. From the *Indignados* movement in Spain to the rise of the Occupy Wall Street movement, there has been a renewed interest in the critical questioning of neoliberal capitalism as an economic system. With discontent of the status quo, there is discourse that suggests capitalism can recover and exit the current crisis which besets it, through the recalibrating of capitalism to value ecological resources and people. This paper covers a range of topics, including: degrowth, green growth, climate change and heterotopia. Not all of the authors discussed would identify themselves as anti-capitalist, and their political affiliations vary from non-partisan to anarchist. The common theme linking the authors is a concern arising from our current capitalist system.

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## INTRODUCTION

If our species does not survive the ecological crisis, it will probably be due to our failure to imagine and work out new ways to live with the earth, to rework ourselves and our high energy, high consumption, and hyper-instrumental societies adaptively. We struggle to adjust, because we're still largely trapped inside the enlightenment tale of progress as human control over a passive and 'dead' nature that justifies both colonial conquests and commodity economies. The real threat is not so much global warming itself, which there might still be a chance to head off, as our own inability to see past the post-enlightenment energy, control and consumption extravaganza we so naively identify with the good, civilized life—to a sustainable form of human culture. The time of Homo reflectus, the self-critical and self-revising one, has surely come. Homo faber, the thoughtless tinkerer, is clearly not going to make it. We will go onwards in a different mode of humanity, or not at all.  
(Plumwood, 2007: 1)

We are experiencing two intertwined crises: the economic crises is about extreme levels of social inequality and the erosion of democracy; and the ecological crises is about destruction of natural resources due to limitless growth and greed. I propose that the two crises are the result of our socio-economic system, namely capitalism, which has produced specific ways of understanding, knowing, and being in relation to our economy and ecology (Swift, 2014). In a 2012 interview with Edward Miliband, the former Leader of the UK Labour Party called for a more responsible capitalism (Moore, 2012). According to Miliband, we need the creativity of capitalism to be allowed to flourish in free markets, but within rules to ensure that it is not irresponsible and is made more decent and humane. Miliband is asked if humane capitalism is not a contradiction (Moore, 2012). Miliband replied “capitalism is the least worst system we’ve got, so there is no alternative than to try and make it work” (Moore, 2012). Capitalism has become so powerful in many of our minds that it has “colonized our imagination, leading to a monoculture where many believe capitalism to be the only option, but alternatives exist (Fisher, 2009). Although the odds of a new system replacing capitalism may not look particularly good at the moment, the problems of capitalism have become easy to see. Today’s crisis presents an opportunity because crises can help create space for alternative socio-economic and socio-ecological relations.

The purpose of this paper is to bring together a compelling range of anti capitalist research that I think can help activists reimagine and create new socio-economic and socio-ecological relations. The sections offer an introduction to authors who have imagined replacing capitalism with better alternative orders. In this paper, I use Sarana and Xhaf's (2011:66) definition of alternative "an ongoing process of economic and political struggle to move beyond the capitalist logic in pursuit of a socio order that is democratic, just, equitable and sustainable at the macro, meso or micro level". I also want to acknowledge that the term alternative is not only unstable with regards to it's meaning but also in the sense that yesterday's alternative can also become today's conventional practices. The authors presented in the paper are only a few of the figures most interesting to me and whose work helps to clarify some of the features of the ongoing capitalist crisis.

The paper began as an exploration into the causes of climate change. After reading the book *Green Capitalism: The God That Failed Us* by Richard Smith (2016) I employed a marxist analysis of climate change in my research. Marxism provides insights into the fundamental cause of the environmental crisis; it looks to the capitalist system, and identifies features that inherently create an ecologically unsustainable society and points to the need an alternate economic system. After reading the book *The End of Capitalism (As We Knew It)* by Gibson-Graham (2006), I began to explore the idea that Marxism may have distorted the way we understand capitalism and contributed to a crisis in left politics, where people find it hard to envision alternatives to capitalism. Theory is not an exact science, therefore, there isn't a need for everyone to converge on the same understanding of the contradictions of capitalism before anything can be done to create alternative economic systems. This paper addresses these issues by distilling them into key questions, organized in three sections:

### **Question 1: What Is Capitalism?**

This section explores the concept of capitalism. To make claims that capitalism is the cause of the contemporary environmental movement; a definition of capitalism must first be established. The section attempts to define what capitalism is in two ways. First by examining what capitalism represents. Second by examining capitalism in historical terms, how capitalism came about, how it developed into the system we see today.

### **Question 2: Is capitalism the root cause of the contemporary environmental crisis?**

This section is a summary of the systemic crises of capitalism and demonstrates the need for an alternative economic system. Specifically the section investigates if and how the contemporary environmental crisis is a result of the inherent features of capitalism. To accomplish this task, I explore concepts from Marxist scholars who have explored the link between the destruction of nature and capitalism. I look at the work of Richard Smith (2016), John Bellamy Foster (2002; 2008), David Harvey (2002; 2014) and James O'Connor (1998).

### **Question 3 : Are there alternatives to capitalism**

This section explores the issue of alternatives to capitalism. The section begins by looking at the idea that marxism has distorted the way we understand capitalism and has contributed to a crisis in left politics, where people find it difficult to imagine alternative economic spaces. The section then highlights the need for multiple versions of alternatives because no one model can fit a diversity of locations.



## **Q1: WHAT IS CAPITALISM?**

In this section I attempt to define what capitalism is and the consequences it has in our lives. Capitalism is difficult to define because it has and continues to take many forms and is a set of socio-economic relations. According to political theorist Simon Tormey (2004) there are two ways of answering this question. The first is to think of what capitalism represents. The second is to think about capitalism in historical terms, how capitalism came about, how it developed into the system we see today. According to Tormey (2004) we need two ways of thinking about capitalism because since the early modern period (during the seventeenth century onwards) capitalism has changed significantly.

In *The Routledge Companion to Alternative Organization* (2014) Parker *et al.* trace the continuity between the many variations of capitalism historically and today. According to Tormey (2004), in abstract terms, capitalism can be argued as where we see the following:

- private ownership over the means of production: land, factories, businesses;
- paid employment or wage labour;
- creation of goods - or the offering of services - for profit via a system of exchange i.e. the market. (Tormey, 2004:2-3).

The first feature of capitalism is private ownership over the means of production (also known as capital) by a particular class known as capitalists and the division between capital and labour. The means of production are the resources necessary for production such as land, buildings, machinery and raw material. The means of production produce wealth only if they are put to work, therefore capital requires labour willing to work for a wage.

In pre-capitalist times most people in the “West produced what they consumed by possessing or having access to the means of production”, usually in the form of “a small plot of land or access to common land on which they could grow food or raise animals” (Parker et al., 2014:4). “This was largely a rural subsistence economy” in which farm workers provide all or almost all the goods required by the farm family without any significant surplus for sale (Parker et al., 2014:4). People worked just enough to ensure that their family was looked after and to ensure that when unexpected crises came along such as bad weather or poor crops there was enough surplus. To a subsistence farmer, profit required extra work, which meant less time to do the other activities she or he wanted to do as well. According to Tormey (2004:6) this is one of the ironies of capitalism, “we work harder and longer hours to do the things that if we worked less we would be able to do anyway”.

According to Tormey (2004), “in most parts of the world, one of the most important resources allows us a degree of independence to individuals” is land (Parker et al., 2014:13). The expropriation of the masses from direct access to the means of production was therefore important in creating labour that capitalists could hire. The enclosure movement in Western Europe, which was the division or consolidation of communal lands into individual farm plots helped to create a labour force that capitalists could hire. The enclosure movement peaked from approximately 1750 to 1860 and ended in the 19th century during the emergence of the industrial revolution (Parker et al., 2014).

During the enclosure movement land was conquered, invaded or otherwise taken from peasants

to serve the needs of royal families, conquistadores, colonial barons, imperial elites or states (Parker et al., 2014). In Britain the commons were seized and divided, and formerly independent subsistence farmers were evicted creating a population of landless men and women (Moore, 2000). They eventually moved en masse to industrial centers from the country to the city, first in England and then the rest of Europe to search for work. This process of expropriation of the masses from access to the means of production, is what made it possible for industrial capitalism to develop in Britain in the late eighteenth century<sup>1</sup> and is referred to as primitive accumulation by Marxist theorists (Tormey, 2004).<sup>2</sup>

Capitalism is based on the division between the owners of the means of production. Workers who don't have access to the means of production must sell their labour to obtain a source of income. This relationship according to Parker et al. (2014:28) “is one based on conflict and power inequality”. To maximize profit, capitalists will “maximize the surplus value they can extract from labour by increasing its productivity or decreasing its cost” (Parker et al., 2014: 29).

The second element of capitalism is its use of the market as the main coordinating mechanism (Tormey, 2014:2). Although capitalism takes place within markets, “the market is not an invention of capitalism, neither does the market itself lead to capitalism” (Parker et al., 2014:29).

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<sup>1</sup> According to David Harvey (2011) primitive accumulation is still an ongoing process in many parts of the world. Many peasants and small producers in many developing countries are being deprived of the means to provide for themselves and are being pushed into cheap labour available for hire in capitalist production.

<sup>2</sup> According to David Harvey (2011) primitive accumulation is still an ongoing process in many parts of the world. Many peasants and small producers in many developing countries are being deprived of the means to provide for themselves and are being pushed into cheap labour available for hire in capitalist production.

The market is much older than capitalism, and many scholars have stated that almost every society known to us has had some form of market exchange (Parker et al., 2014; Tormey, 2014). According to Parker et al., (2014:14), the distinctive feature of capitalism is the labour market. In neoliberal economics a key concept is that the free market is the most efficient way of allocating resources, of organizing the economy, and of balancing competing interests (Parker et al., 2014). Within a free market, individuals and firms freely and rationally pursue their own interest in maximizing their gain by engaging in voluntary exchange with each other, therefore all interests of all parties are reconciled (Parker et al., 2014). For example, it is in the interest of capitalists to produce what consumers want, at a price they are willing to pay. If they start producing inferior products, or charge too much, then they will be driven out of the market by better quality and cheaper producers. Another example is the trickle-down effect (Parker et al., 2014). This occurs when the market distributes the increasing wealth of a rich minority to the rest of the population, through the process of the wealthy purchasing new products and services, thereby creating employment opportunities for the majority (Parker et al., 2014). The market is supposed to be self-regulating and should be left to its own devices and be free of government intervention. However, according to Thorsen and Amund Lie (2007:5) the issue of government intervention is debatable because even neoliberal economists would agree that, at a minimum, states need to create and enforce private property law. And in many countries the government plays an important role in creating the right conditions for capitalist development and regulating the market (Parker et al., 2014:31). The incapacity of markets to self regulate can be illustrated with the 2008 financial crisis where many governments chose to bail out banks and industries to save the economy from collapsing. Deregulation has “allowed banks and other financial institutions to take risks that resulted in their near-insolvency” (Wallison, 2009:1). According to Parker et al.

(2014:35), the notion of the “free market seems to correspond more to a myth than a reality” because markets are socially constructed. Despite this, the idea that the market is a natural force outside human control is still heard in political circles even though policies tend to highlight the opposite.

The third feature of capitalism is the profit motive which can be argued as the “driving force of capitalism” (Tormey, 2014:3). In capitalism the production process is organized around the accumulation of wealth (Tormey, 2014). Goods and services are not produced for their immediate consumption, but for their ability to be exchanged for a profit (Harvey, 2011). This has several implications. First, capitalists have little interest in things which have use value and cannot be traded on the market for a profit. But capitalism has been creative in transforming what appears to be unprofitable into investment opportunities, from education and health care to water and security provision (Parker et al., 2014). Second, for goods and services to be traded for a profit, they need to be commensurable, in other words they need to be priced against each other. According to Parker et al. (2014), measures such as monetization that allow for commensuration are therefore essential to capitalism. Monetization, by attaching a price tag or exchange value to materials or labour, allows goods and services to be transformed into tradable equivalents (Parker et al., 2014). There are various theories of how exchange values are set, for example neoliberal economic theories highlights the role of supply and demand (Tormey, 2014). Capitalism transforms everything into a system where commodities acquire a price, an exchange value, on the basis of which they can be traded and profit can be gained (Fisher, 2009). Inequality and precarity flows from this system as markets concentrate wealth and workers must feel insecure to ensure low wages and high profits.

The profit motive and the market externalize costs, especially environmental costs, and as a result capitalism systematically destroys the natural environment.

Private ownership leads to the concentration of wealth and a withdrawal of wealth from the public sphere, needed for the regulation of industry and for social provision. These ideas will be explored in the next section.

## **Q.2: IS CAPITALISM THE ROOT CAUSE OF THE CONTEMPORARY ENVIRONMENTAL CRISIS?**

There is debate on whether the planet faces serious ecological problems that will lead to an ecological collapse. The distinction should be made that many environmental changes are the result of both natural processes and human influence. Though there are some such as the great geological transformations in which human play no part, there are others like deforestation for which humans are almost solely responsible. In this section I explore the idea that the current global ecological crisis stems from the socio-economic system, capitalism. This section explores the contradiction between capitalism and nature. Specifically, I want to understand if and how climate change connects to the inherent features of capitalism and the resulting environmental crisis. To accomplish this, I explore concepts from Marxist scholars who explore whether the current ecological crisis originates from capitalism. I look at the work of four prominent Marxist scholars, Richard Smith (2016), John Bellamy Foster (2002, 2008), David Harvey (2002, 2014) and James O'Connor (1998).

Richard Smith is a Marxist scholar whose recent work warns that our current global economic system is driving us to ecological collapse. Smith has published articles on capitalism and the global ecological crisis in the *Journal of Ecological Economics*, *Capitalism Nature Socialism and Real-World Economics Review*. Smith's (2016) latest book *Green Capitalism: The God that Failed*, argues that capitalism is systematically incapable of solving many of the problems it creates, namely the ecological crisis. According to Smith (2016;19) "ecologically suicidal growth is built into the nature of any conceivable capitalism". Smith highlights this ecologically suicidal growth with three theses which are fundamental principles that shape the dynamics of capitalist

economic development. Smith (2016:19) also points out that his three theses are “uncontroversial and completely obvious to mainstream economists across the ideological spectrums”.

Smith’s first thesis is Producers Are Dependent Upon The Market. In short, in a capitalist economy, everyone is dependent upon the market, people are forced to sell, to buy. Capitalists do not produce their own means of subsistence so they must sell their commodities on the market to obtain money for survival which is also used to purchase new means of production and to hire more labor<sup>3</sup>. Workers on the other hand have insufficient means to enter into their own production so they have to sell their labor to capitalists. (Smith, 2016)

Smiths second thesis is Competition Is The Motor Of Economic Development. Producers are not free to sell their commodities at whatever prices they want because other producers are selling the same commodity. Producers, therefore, must meet or beat the competition to sell their product and stay in business. Consequently, producers must constantly strive to increase the efficiency of their units of production by cutting the cost of inputs to boost productivity, or by increasing their scale of production to take advantage of economies of scale (Smith, 2016).

Smiths third thesis and most important is (Grow Or Die Is A Law Of Survival In The Marketplace) . Most producers have no choice but to live by the law of capitalism which states you must grow or die. With the increasing division of labor, productivity and output increases, producers are forced to find new markets for their growing output. Competition also forces producers to expand their market share, thus protecting themselves against competition.

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<sup>3</sup> In broad terms “means of production” in capitalism refers to what is used to produce, such factories, machines and raw materials.



Increasing market share enables larger producers to take advantage of economies of scale.  
(Smith, 2016)

Corporate CEOs are pushed to grow corporations and therefore they believe they cannot subordinate profit-making to environmental concerns, because corporations are owned by shareholders who are looking to maximize portfolio gains (Smith, 2016:20). Giant corporations are destroying the environment, it is in the course of a routine business day (Smith, 106: 20).

Joel Bakan (2004:34) perfectly sums up the suicidal growth built into corporations this up in his book *The Corporation: The Pathological Pursuit of Profit and Power*

Corporations are created by law and imbued with purpose by law. Law dictates their directors and managers can do, what they cannot do, and what they must do. And, at least in the United States and other industrialized countries, the corporation, as created by law, most closely resembles Milton Friedman's ideal model of the institution: it compels executives to prioritize the interests of their companies and shareholders above all others and forbids them from being socially responsible at least genuinely so

From Smith (2016), we can see that the ecological crisis we face is not just caused by production and consumption, it is also caused by the irrational nature of the rational capitalist market. According to Smith (2016) as long as we live under capitalism, profit maximization overrides everything else. In short we have an economic system that is based on constant growth but we live on a finite planet with limited resources and limited sinks to absorb pollution (Smith, 2016).

James O'Connor is one of the contemporary pioneers of Ecosocialist thinking and was the

founding editor of the eco-socialist journal *Capitalism Nature Socialism* in 1988.<sup>4</sup> Framing social and ecological problems as manifestations of what he calls the second contradiction of capitalism, O'Connor (1998) has also examined the ways in which capitalism destroys nature. O'Connor's work attempts to demonstrate that there are ecological limits to economic growth which impede the seemingly limitless growth potential of capitalism. Using the methodological framework of ecological Marxism, O'Connor (1998) analyzes the ways in which capitalism destroys nature thereby threatening its stability along with the stability of nature. Ecological Marxism is an ideology which attempts to explain the ecologically destructive tendencies of capitalism through what is referred to by Marxists as the contradictions of capitalism (O'Connor, 1991). Although Marx (1991) wrote that capitalist farming produced negative ecological consequences, he never formulated a broader ecological theory of capitalist contradiction, because in Marx's writings the exploitation of labour was central while nature and natural resources were a secondary concern. O'Connor attempts to reconcile this tension through ecological Marxism.

O'Connor (1998) begins his analysis in the Marxist tradition, where capitalism is viewed as a system of contradictions (O'Connor, 1998). O'Connor describes capitalism as both crisis-ridden and crisis-dependent. Capitalism generates barriers to its own further development (O'Connor, 1998). Similar to Marx (1867/1887), O'Connor (1991) argues that these barriers present themselves as crises which have the potential to undermine capitalism as a whole. O'Connor

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<sup>4</sup> *Ecosocialism* is an alternative to capitalism, that is rooted in the Marxist critique of political economy. Löwy, M. (2005). What is ecosocialism? *Capitalism Nature Socialism*, 16(2), 15–24. <https://doi.org/10.1080/10455750500108237>

(1991) argues that capitalism is plagued by one very specific internal contradiction which he calls the first contradiction.

The first contradiction is created by capitalism's need to expand. The system cannot exist in stasis. According to O'Connor (1991) there needs to be a steady and increasing flow of profits into the system, otherwise it will collapse. Therefore, economic sustainability in capitalism requires profits. Profits come from the "continual accumulation of capital and its reinvestment to expand production" (Parker et al., 2014: 29). Investment allows for technological innovation and, consequently, the increasing automation in the production process (Parker et al., 2014). Nonetheless capitalism threatens its own survival when it increases productivity, which is needed to maintain and expand profit (Parker et al., 2014). Consequently, there will be a contradictory trend for profits to decrease (O'Connor, 1991). In short the first contradiction of capitalism can be characterized as capitalists attempt to restore profits by increasing labor productivity through speeding up work and cutting wages in an attempt to get more production from less workers (O'Connor, 1991). The unintended consequence is that the worker's loss in wages reduces the capacity of workers to consume. This is called a demand side crisis, where growth is constrained by limited demand (Parker et al., 2014).

O'Connor's theory of the second contradiction of capitalism is developed in parallel to the first contradiction. The second contradiction demonstrates how capitalism tends to create wealth on one hand and degraded conditions of production such as resource-depletion, pollution, species and habitat destruction on the other (O'Connor, 1991). Using Marxist theory, O'Connor, 1998 believes the second contradiction of capitalism demonstrates that the contemporary

environmental crisis has developed from the capitalist economy. According to O'Connor (1998) the emerging and increasing environmental crisis originates from treating nature as an undervalued and marketable commodity. The second contradiction highlights how capitalism degrades environmental systems, due to the fact that capitalist production relies on certain conditions such as free and unconstrained access to raw materials for production (O'Connor, 1991). For example, tree logs become lumber through a system that requires cheap and unrestricted access to forestry resources, this framework leads to resource exhaustion because price of lumber does not reflect their true cost.<sup>5</sup> Similar to the first contradiction, the second contradiction leads to the destruction of the very conditions on which capitalism lies, in this case the environment. According to O'Connor (1998) capitalism has responded to the second contradiction of capitalism through supply-side restructuring, by opening up of the system to a more intensive exploitation of labor and the environment. Many regulations that were previously put in place to protect the conditions of production were dismantled under the ideology of the free market. For example, the Conservative government in Canada under Stephen Harper significantly weakened Canada's environmental regulations with omnibus budget bill C-38. The bill significantly weakened rules relating to fisheries protection, environmental assessment, endangered species, and national parks all awhile promoting aggressive resource development (David Suzuki Foundation, 2012). Opening up the system to more intensive exploitation of the environment has led to a speedup in the destruction of the remaining natural ecosystems across the world. Also, because our current commodity production structure heavily relies on pesticides, petro chemicals, and fossil fuels, there is accelerated habitat destruction which create problems of ecological sustainability. According to O'Connor (1998:107 ) because only a small proportion

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<sup>5</sup> Rarely do producers or consumers have to pay for the environmental damage they cause to the environment.

of environmental costs have been internalized by capital and the state, it is inevitable that the environmental consequences of the second contradiction will grow (O' Connor, 1998).

Another dimension of the contradiction between capitalism and nature is the metabolic rift. The metabolic rift is an analysis in various works of John Bellamy Foster, who is an environmental sociologist and who has written extensively on Marxist ecology. Foster's (2010) concept of the metabolic rift is an extension of Marx's view on ecological crises that occur under capitalism. According to Foster (2010), Marx's theory of metabolic rift allows us to understand how capitalism expands by externalizing waste and degrading the environment. The metabolic rift theory was originally described by Marx in the context of agriculture and the soil crisis (Foster, 2010). Marx introduced the concept of the metabolism and metabolic rift, which was influenced by the chemist Justus von Liebig in *Capital* (1991),

large landed property reduces the agricultural population to an ever decreasing minimum and confronts it with an ever growing industrial population crammed together in large towns; in this way it produces conditions that provoke an irreparable rift in the interdependent process of social metabolism, a metabolism prescribed by the natural laws of life itself. The result of this is a squandering of the vitality of the soil, which is carried by trade far beyond the bounds of a single country (Marx, 1991:949).

The term metabolism was first used to describe the material exchanges within the human body. In the 1850s, the German chemist Justus von Liebig, applied the term more broadly, using it in his studies of soil nutrients (Moore, 2000). Liebig argued that because British agriculture used intensive methods of cultivation to increase yields for the market, this resulted in a system which depleted soil nutrients (Moore, 2000). Marx was influenced by Liebig because his analysis complemented Marx's critique of the political economy. According to Marx (1976:637-638) "there is a necessary metabolic interaction" between humans and the nature; humans are

dependent on nature, as it provides the means and material that sustain human life". Marx identified a change in relationship between nature and the economy which was caused by capitalism (Moore, 2000). Marx described the change as a rift in the ecological relationship between town and country. This rift highlights the "rupture in nutrient recycling between the country and the city in historical capitalism" (Moore 2000:124). The metabolic rift occurs with the "transfer of nature's nutrients and the ultimate depletion of nature's resources in the country to produce crops for export to cities" (Foster, 2002:7).

According to Marx (1976:638) the capitalist system's relentless drive to accumulate capital creates irreparable rifts in the metabolic interaction between humans and the earth which causes the degradation of nature through the depletion of soil nutrients and the accumulation of waste in cities. As capitalism attempts to overcome the rift it created, it continues to contribute to the metabolic rift and create new ones, which Foster (2011) has termed shifts.<sup>6</sup> For example, the application of artificial fertilizers to solve the rift in soil nutrients creates additional rifts, because other resources are exploited to produce artificial fertilizers. One of the consequences of the metabolic rift which caused declining soil fertility in the 1800s was the creation of an international guano/nitrate trade (Foster, 2011). At the time, guano was seen as one of the best fertilizers, and guano from islands off the coast of Peru had the highest concentrations of phosphate and nitrogen because of Peru's seabird colonies (Foster, 2011). As a result, guano was dug up and exported to the United States and European countries (Foster, 2011). According to Foster (2011), the international guano trade did not fix the rift, instead it redirected a natural resource, which had been used to enrich the soils of Peru, to the global market, rapidly

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<sup>6</sup> Foster (2011: 75) has termed the moving around of environmental problems "shifts".

diminishing the resource on the islands. Also the fertilizer failed to resolve the main problem creating the depletion of the soil; capitalism, which is premised on the increasing accumulation of capital.

According to Foster (2010), the metabolic rifts continue to the present, and have manifested itself in the contemporary environmental crisis. One of Foster's (2010) examples is the development of energy production technologies. Throughout human history, wood has been one of the primary energy sources humans have depended on. As industrialization advanced more energy intensive processes such as the smelting of metals became more widespread resulting in greater demand for fuel which increased the rate of deforestation. Entire forests were cut down at unprecedented rates, making wood scarce. This scarcity led to a search for new sources of power to fuel the machines that allowed for production to take place on a growing scale. Foster (2011) notes that the biophysical limits of the environment were apparent from the beginning of the Industrial Revolution, but capitalists did not concern themselves with the contradictions of capitalism. Instead contradictions were viewed as barriers to be overcome. Coal, and subsequently other fossil fuels, eventually became fuel for industry, temporarily relieving the fuel wood crisis (forests did continue to fall due to the many demands placed on them). According to Foster (2011), this shift created the foundations for our current global climate change crisis by drastically increasing the emission of carbon dioxide.<sup>7</sup> Oil is added to coal as a fuel source and numerous other energy sources have been exploited as of today. Among these is nuclear power. Early nuclear advocates claimed that it would provide clean and unlimited power.

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<sup>7</sup> GHG emissions come primarily from the burning of fossil fuels in energy use. When coal, oil and gas are burned, these carbon-containing fuels release carbon dioxide and other greenhouse gases. They build up in the atmosphere, increasing the natural greenhouse effect. This traps more heat and raises the earth's surface temperature (Meinshausen et al., 2009).

However, it turned out to be expensive, risky and the issue of disposing radioactive waste. There is also agro fuels; Foster (2011) argues that proponents of agro fuels ignore the fact that the production would be based on unsustainable agricultural practices that deplete the soil nutrients, demand fertilizers, bringing us back to the metabolic rift that Marx originally identified. All of these solutions avoid addressing an economic system that is structured around burning fossil fuels.

According to David Harvey (2014:214), a leading theorist in the field of urban studies and urban geography, “the idea that capitalism is encountering a fatal contradiction in the form an environmental crisis is plausible, because of the accumulating environmental pressures that arise from capital’s need to grow”. Harvey's (2014) book *Seventeen Contradictions and the End of Capitalism* outlines four key reasons to cast doubt on the thesis capitalism is encountering a fatal contradiction in the form an environmental crisis.

First, capitalism has a history of successfully resolving ecological problems it creates, such as the ability to absorb pollutants, to cope with the degradation of habitats, the loss of biodiversity, the declining qualities of air, land and water and so on. Harvey (2014) notes that there have been past predictions of an apocalyptic end to civilization because of capitalism and the natural scarcities and disasters it creates. In the 1970s Paul Ehrlich, a leading environmentalist, predicted that mass starvation would occur by the end of the decade, but it did not occur. According to Harvey (2014), “because such predictions have been wrong in the past does not necessarily guarantee that the current predictions of environmental collapse are wrong but it does give grounds for skepticism”. (Harvey, 2014:46-47)



Harvey's (2014) second point is that the nature that we are supposedly exploiting which then possibly limits us is actually internalized within the accumulation of capital. For example, the ability for a plant to grow is incorporated into agribusiness in its pursuit of profit and the reinvestment of that profit. Reinvestment allows the plant to grow again the next year. Harvey (2014) tells us that we should not think of capital and nature as two distinct entities in interaction, where one dominates over the other. Rather, Harvey (2014) proposes that we think of capitalism as a working and evolving ecological system within which nature and capital are constantly being produced and reproduced. The nature that results does not evolve unpredictably on its own instead it is constantly being reshaped by the actions of capital. This is what Neil Smith (2006) has called the production of nature. Harvey (2014) notes that the direction this production of nature takes is not limited and there has been many unintended consequences.<sup>8</sup>

Third, capitalism has turned environmental issues into business opportunities. According to (Smith, 2007:33)

The fundamental victory of late-twentieth century environmental politics was precisely to highlight and isolate environmental destruction as the integral result of capitalist patterns of production and consumption. If still incompletely, the market has now retaken and recolonized environmental practices... The extensive production of nature that has characterized capitalism since its infancy has, since the 1970s, been challenged and increasingly superseded by an intensive production of nature.

Smith's point is that under capitalism, nature becomes subsumed by use and exchange values.

This means that not only is nature being used in the overall process of capitalist accumulation as

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<sup>8</sup> For example, the refrigerator provided a safer, low-toxicity alternative to previously used refrigerants. Years later refrigerators were identified as the source of chlorofluorocarbons, which contributed to the depletion of the stratospheric ozone layer which protects us from solar radiation.

means of production, such as raw material for the production of goods, but nature also becomes a commodity. Consequently, support for environmental business practices have been helpful to both capitalism and to environment. For example, solar energy has become a big business but is also a clean energy which contributes to the reduction of greenhouse gas emissions<sup>9</sup>. Though, Harvey (2014:49) points that some of the “environmental benefits have been symbolic in the form of greenwashing”. The term greenwashing was coined in the 1980s to describe corporate environmental stewardship that promise more environmental benefits than they deliver (Laufer, 2003).

Fourth, capital may be able to continue to circulate and accumulate during environmental crises. According to Harvey (2014), environmental disasters create opportunities for disaster capitalism to profit.<sup>10</sup> Harvey (2014) points out that deaths, starvation and massive habitat destruction will not necessarily interfere with capital's course unless it triggers rebellion. Also, capital has never diminished from destroying people in order to increase profits. For example, toxic waste disposal which is highly concentrated in poor and vulnerable communities or in poverty stricken countries around world and the poor air quality in northern China is reported to have reduced life expectancy by approximately five years since 1980 (Harvey, 2014).

According to Harvey (2014:250), “capitalism’s success in overcoming its contradictions in the

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<sup>9</sup> Solar is not completely a clean energy source it creates waste creating the panels which require caustic chemicals such as sodium hydroxide. The process also uses water as well as electricity production emits greenhouse gases.

<sup>10</sup> The disaster capitalism thesis, states that neoliberal capitalism both creates disasters and employs these same disasters as opportunities to facilitate its expansion (Klein, 2007)

past does not guarantee that it will overcome its contradictions this time”.<sup>11</sup> The cumulative negative ecological damage and adaptations of capital’s past are still present today. Therefore, the baseline from which capital’s ecosystem functions is very different now than in the past. For example carbon dioxide concentrations in the atmosphere have been rising for years.<sup>12</sup> Suburban lifestyles has been expanding in places such as China and India. This way of life is now embedded into cultural preferences.<sup>13</sup> For Harvey (2014:211) the key difference this time is around is:

we are now at a key inflexion point in the exponential growth rate of capitalist activity. This is having an exponential impact upon levels of environmental stress and distress within capital’s ecology.

Harvey (2014) asserts that under the pressure of continued exponential growth, environmental degradation will continue to accelerate and it is difficult to predict how fatal environmental degradations will be because humans don't have any secure knowledge of how capital’s ecosystem is actually functioning as a whole. Therefore, we face uncertainty with regards to all the ecological issues that must be addressed.

Although Harvey (2014) states that capital’s continued exponential growth will lead to environmental degradation, he does not predict it will be apocalyptic. For Harvey (2014:215) the

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<sup>11</sup> Successful is here defined, in capital’s terms which is sustained profitability.

<sup>12</sup> Carbon dioxide in the atmosphere is higher than they have been at any time in the past 400,000 years. During ice ages, CO<sub>2</sub> levels were around 200 parts per million (ppm), and during the warmer interglacial periods, they were around 280 ppm . In 2013, CO<sub>2</sub> levels were approximately 400 ppm, the recent rise in CO<sub>2</sub> shows a constant relationship with fossil-fuel burning, and can be well accounted for based on the simple premise that about 60 percent of fossil-fuel emissions stay in the air. Data: National Oceanic and Atmospheric Administration

<sup>13</sup> Suburban landscapes facilitate high energy consumption that wastefully uses land and water.

reason environmental problems persist are political, institutional and ideological and are not due to the limits of nature.

if there are serious problems in the capital–nature relation, then this is an internal contradiction within and not external to capital. We cannot maintain that capital has the power to destroy its own ecosystem while arbitrarily denying that it has a like potential power to cleanse itself and resolve or at least properly balance its internal contradictions.

Harvey (2014) points out that capitalism has successfully responded to contradictions in the past. For example, the Montreal Protocol which restricted the use of chlorofluorocarbon through international agreement allowed the planet to avoid a serious environmental threat. Harvey (2014) states that it was the conversion of free market proponent Margaret Thatcher into an active supporter of the intergovernmental agreement that made the agreement possible. With the case of climate change, there are too many deniers in positions of power to allow for internationally coordinated ameliorative actions. According to Harvey (2014), because of political, institutional and ideological barriers, there will be resource wars, famines in some areas, environmental refugees and frequent disruptions to commerce. Though resource wars and scarcity will not put an end to capital because, we can find substitutes. Resources are "technological, economic and cultural evaluations of use values in nature" therefore if there are scarcities we can change our technology (Harvey, 2014:216).

Capitalism has brought economic growth and technological innovation, but along with capitalist economic growth comes and relentless search for profits, which has led to the destruction of the environment. Capitalism is an economic system that pursues endless growth, which requires the use of ever increasing resources. As a result, capital has a tendency to destroy natural conditions,

thereby undermining the base on which ecological sustainability depends. Arguably the current ecological crisis facing humanity began to emerge during the historical stage of capitalist development. From the work presented by Foster (2010; 2011), Harvey, (2014), O'Connor, (1991;1998) and Smith (2014), one can see that many of the current ecological problems we face are caused by the logic of capitalism. Capital's need to expand has lead to increased consumption and destruction of the natural environment.

### **TO GROW OR NOT TO GROW**

Within the framework of capitalism growth is the process of capital accumulation. Growth within the capitalist system is ongoing and varies depending on the period and geographic location. The capitalist process of production has fed on the destruction of nature. Since the 1980s, globalization has accelerated the commodification and destruction of natural resources (Luke, 2005). The destruction of nature is a failure of capitalism because the system does not have an effective mechanism to protect the environment. In this section I explore the idea that a sustainable, reinvented and regulated version of capitalism can protect the environment. The section explores the sustainable development and degrowth schools of thought. Specifically, I want to understand the external limits of our current economic model in regards to protecting the environment. To accomplish this, I explore concepts from two scholars Richard Smith who has written extensively on the topic of capitalism and Timothy Luke who has contributed to the critique of sustainable development. According to Luke (2006:101) sustainable development is an “effort to manage and mitigate the damage inflicted upon nature in ways that represent the ecological crisis as manageable within the current parameters of capitalism”.

## SUSTAINABLE DEVELOPMENT

Development does not need to be halted altogether because it is still needed in poorer regions of the world.<sup>14</sup> Instead, we as a society need to ask what kind of development we need, under what conditions and how it can be made compatible with the environment. Environmental movements have long pointed to capitalism's negative impacts on the environment. Activists and theorists have now been joined by more mainstream voices, expressing similar concerns. Former US Vice President Al Gore and former Goldman Sachs banker David Blood cofounded a sustainable investment firm called Generation Investment Management LLP. In 2012, they published a white paper on sustainable capitalism. Economist Umair Haque who wrote *The New Capitalist Manifesto: Building a Disruptively Better Business* (2011:62), insists that "a new capitalist manifesto is needed, in order to make capitalist development and growth more socially just and environmentally sustainable". In their book *Climate Capitalism* Newell and Paterson (2010) argue that in response to rising concerns about climate change, attempts to reorganize capitalism are already under way. In Newell and Paterson (2010) point to the creation of new governance mechanisms such as carbon markets which attempt to decarbonize the global economy while simultaneously ensuring continued economic growth. But do new discourses about sustainable development address problems such as climate change and global ecological destruction?

According to the Brundtland Report (1987) Sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Calls for sustainable development first gained momentum in 1983, when the World Commission on Environment and Development was created by the United Nations to address the

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<sup>14</sup> Development in the broadest terms refers to the improvement in people's well-being.

growing concern of the accelerated deterioration of the human environment and the natural resources. The outcome of Commission was the report *Our Common Future*, most commonly know as the Brundtland Report. The report's focus is on global sustainability and provides an overview of global environmental crises and suggestions on how to solve these problems. According to Luke (2005), the Brundtland report put environmental issues on the political agenda, with the goal of discussing the environment and development as one issue. Sustainability is however not a clear cut concept. The concept of sustainable development in praxis has no consensus apart from broad guiding principles.<sup>15</sup> Nevertheless, since the 1992 Rio Earth Summit on the environment, sustainability development has been broadly accepted by governments, NGOs and businesses.

Five years after the Brundtland Report, the United Nations Conference on Environment and Development (UNCED) reconvened in Rio de Janeiro in Brazil to discuss the progress made towards sustainable development since the Brundtland Report. The objectives of the conference were to build upon the achievements since the Brundtland Report, in order to respond to global environmental problems. According to Bernstein (2002), the main outcome of the Rio Earth Summit was the institutionalization of neoliberal approaches to sustainable development. The institutionalization of neoliberal approaches to sustainable development are based upon two assumptions: free trade regimes and high economic growth rates are compatible and important preconditions for environmental sustainability (Bernstein, 2002:101). Market-based tools are the most appropriate mechanisms to apply in efforts to achieve environmental sustainability

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<sup>15</sup> Sustainable development recognizes that the three ‘pillars’ – the economy, society, and the environment are interconnected. Our long term economic growth relies on protecting and enhancing the environmental resources that underpin it, and paying due regard to social needs (Sustainable, O., & Studies, D. 2007).

(Bernstein, 2002:101). Market-based approaches to global environmental problems was reasserted in the conference documents at the UNCED Rio+20 conference in 2012, where governance mechanisms such as carbon markets are key components to the new green economy. (UNCED, 2012; Foster 1996)

According to Timothy Luke (1996) sustainable development in these terms is the same as sustained economic growth. Sustainable development is made more compatible with ecological considerations through the internalization of environmental costs by the market and the need to preserve certain forms of important natural capital, such as tropical rainforest ecosystems.

According to Luke (2006:101) sustainable development is an “effort to manage and mitigate the damage inflicted upon nature in ways that represent the ecological crisis as manageable within the current parameters of capitalism”. Luke (2016:101) also recognizes that despite the advances we have achieved in creating environmental sustainability, “the existing socioeconomic and social ecological inequality of commodity production and consumption remains unaddressed. Thus Luke (2006:100) comes to the conclusion that sustainable development is neither sustainable nor development because “ecological degradation is not halted; it is instead measured, monitored, and manipulated within certain tolerances” and therefore, within capitalism, “ecological degradation perversely acquires its own sustainability”. Consequently, Luke, concludes sustainable development must be reframed as sustainable degradation. Drawing from O'Connor's second contradiction of capitalism, Luke (2006) argues that “sustainable degradation” represents efforts to manage and mitigate the damage we are causing to nature.<sup>16</sup>

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<sup>16</sup> The second contradiction of nature involves the capitalistic tendency to exploit its resources to the point of threatening the entire system.



Luke's (2006) work expands on O'Connor's second contradiction of capitalism to show how flexible planning has created three forms of sustainable degradation: eco-managerialism; eco-judicialization and eco-commercial.

Eco-managerialism is a specific type of environmental management carried out by technical experts who are trained in environmental science and policy schools. Eco-managerialism emphasize sound scientific and technical solutions to environmental crises issues (Luke, 2006). According to Luke (1999), eco-managerialism emerged with the gradual acceptance that nature is necessary requirement for most business activities. Luke's concept of of eco-managerialism attempts to understand how resource management has used nature mainly as an economic and political tool that can be best managed by technical environmental experts. According to Luke (1999:104, eco-managerialism's main goal is "redefining and then administering the earth as natural resources". These specially trained environmental experts define their managerial goals in relation to ecosystem goods and services, which views the natural environment primarily as a commodity (Luke, 2006).<sup>17</sup>As a result, not only are environmental managers charged with the protection and conservation of the natural environment but they also protect the dominant economic and political interests that surround those ecosystem goods and services. According to Luke eco-managerialism uses a capitalistic and technocratic approach to environmental management where and efficiency and economic development are the main motivations for environmental policy and management as opposed to finding potential solutions to environmental concerns.

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<sup>17</sup> Ecosystem services are the direct and indirect contributions of ecosystems to human well-being, they support directly or indirectly our survival and quality of life.

At the core of eco-managerialism is the discursive transformation of ecological processes and systems into natural resources (economic commodities) because under eco-managerialism nature is not valued for its ecological processes but its function in the capitalist economy. Building upon Foucault's (1978) idea of biopower, Luke (1996) argues that eco managerialism's material and discursive practices are a form of geopower where only eco-managers are employed for resource management and to solve ecological crises.<sup>18</sup> For Luke (1996) this occurs in research universities where students learn to manage, manipulate, and control nature as a standing reserve, a resource supply centre and a waste reception site. This is central to making nature legible to policy-makers. In short technical experts use nature to legitimize political projects aimed at sustaining capital accumulation.

Eco-commercialist research, is a discipline created to support decision-making in eco-managerialism and eco-judicialism. According to Luke (2006:104) eco-commercialism is a "self-assigned commission to generate, synthesize, and effectively convey the necessary information needed by the public, or the state, for the formulation and implementation of policy designed to safeguard the earth's life-support system. Under eco-commercialism, nature is scanned as a condition of production and turned into ecosystem services. This involves the technical work of scientists producing a detailed analysis of our current understanding of ecosystem services and an assessment of their economic value. These resource assessments rationalize the use of earth as a system needed to sustain humans. According to Luke (2006) ecosystem service appraisers

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<sup>18</sup> Using the term geo-power Luke (1996) traces the emergence of the environment as a nexus for knowledge formation and as a cluster of power tactics. What emerges are codes of knowledge representing the human interface with the biophysical world which themselves become crucial technologies in the exercise of power called geo-power. In short the apprehension of knowledge about how it is that ecosystems are central to human survival (eco-knowledge) becomes a political technology through which geo-power is exercised.

usually assess that the value of ecosystems exceeds that of the commodities we associate with them, but eco-commercialists continue to apply ecosystem services in commodified terms.

For eco-commercialists more information and better cost accounting, will help to reduce the current ecological crises. According to Luke (2006:6) eco-commercialists hold the view that free markets and “overbearing states” fail when it comes to protecting the environment. Eco-commercialists on the overhand work at engineering economic solutions to preserve the earth and increase up profits. Within eco-commercialism, “governments, businesses, and sciences collaborate to provide” “rational”, “accurate”, scientific information to work together to sustain both growth and the environment (2006:6). “Eco-commercialists... find new paths for interweaving” both growth and green practices into business operations. According to Luke (2006:7), eco-commercialists believe that we shouldn't view “economic, environmental and social policy as competing”. Instead of focusing on “tradeoffs or balance” between growth and the environment, we should focus on “design integration” at all levels, from mechanical devices, production systems or individual businesses economic sectors to entire cities (Luke 2006:7).

Once environmental resources are evaluated and costed as ecosystems services, experts begin to turn these assessments into policy decisions. According to Luke (2006:103) "eco-judicialization adapts environmental issues to the juridico-legal possibilities of liberal capitalist property laws, commercial codes, business regulations, and environmental legislation”. In short judicial tools are employed to manage and mitigate damage to the environment as capitalists seek to ensure a continuing supply of the conditions of production. Eco-judicialized activity often includes, i. environmental regulation or regulatory regimes which employ both a standards-based system

(i.e., specified emission criteria) and an objects-based system (i.e., prevention of adverse effects);

ii. quasi-criminal enforcement where Individuals and companies that do not comply with environmental legislation may be subject to quasi-criminal charges.

iii. environmental penalties: environmental penalties are meant to encourage compliance with the appropriate regulatory regime, rather than to penalize those who do not comply.

iv. administrative orders where governments and authorities can order individuals and businesses to take remedial action to investigate, clean up or otherwise address an environmental concern or issue.

Luke (2006:106) writes that the eco-judicialized approach to coping with environmental crises in today's conditions of production is often provisional or symbolic, but it still has real material effects because these practices "combine non-legal modes of collective decision-making and dispute settlement with the modalities of juridical opinion and judicial due process". Although these are advances in protecting the environment, the growth engine of capitalism remains unaltered, therefore sustainable development is ultimately not sustainable. Ecological degradation is merely monitored to because within the current parameters of capitalism because many environmental concerns are not addressed.

From Luke's (2006) work, we can see that the three strategies of sustainable degradation are intellectual and institutional responses to the second contradiction of capitalism by adapting the social conditions of production to the capitalist environmental crises. Eco-managerialists, eco-commercialists, and eco-judicialists allow those in power to draw upon capitalism to address the environmental crisis. The system of sustainable degradation enables capital to extract even more value by maintaining the appearances of creating ecological sustainability while exploiting the realities of environmental degradation. For Luke (2006), sustainable degradation is essentially a

proactive and profitable policy that maintains some environmental sustainability by creating spheres of control where degradation is curtailed, but never actually halted and commodity production and consumption remain unaddressed. Essentially sustainable degradation makes the ecological crisis manageable within the parameters of contemporary capitalism.

## **DEGROWTH**

Since the early beginnings of the environmental movement there has been growing criticism that our current pattern of economic growth is destroying the environment. The degrowth movement emerged from this critique. Economists such as Herman Daly, Tim Jackson, and Serge Latouche have long advocated for degrowth; the idea is that capitalism can be slowed down into a steady state or degrow. The concept of degrowth is partially based on Nicholas Georgescu-Roegen study of the impact of entropy on the economy through the second law of thermodynamics. In Georgescu-Roegen (1971) paper *Entropy and the Economic process* he introduced the idea of the ecological limits to growth within the industrial economic growth model. His research highlights the idea that although natural resources can be protected to a degree by a certain measure, it is impossible for growth to continue infinitely, regardless of the measures employed. According to Kerschner (2009) the term degrowth became widespread when Jacques Grinevald and Ivo Rens translated Georgescu-Roegen work into French. From Georgescu-Roegen's work, a degrowth started in France in 2001, but it wasn't introduced to a larger public until a 2008 international conference in Paris, which was been followed up by other international conferences in Barcelona, Montreal and Venice. The movement critiqued traditional growth economics as being socially counter-productive, uneconomic and ecologically unsustainable and argued that the only way for us to live within the earth's ecological limits and mitigate the effects of the current

environmental crisis is to reduce economic activity and downscale our consumerist lifestyles (Garcia, 2012).

The concept of degrowth has multiple meanings and does not embrace one particular philosophical thought; its foundations derive from streams of ecological and social thought (Schneider et al., 2010). In the most fundamental form degrowth is a downscaling of production and consumption that increases human well-being ecological conditions and equity on the planet (Demaria et al, 2013:198). Within the degrowth school of thought, there are numerous debates on strategies. Firstly, there have been debates between the focus on the national or international political level that action should be focused on. Whether there should be a focus on replacing all existing institutions (e.g. financial institutions) or a focus on some adaptations. There has also been a debate between giving priority to practical action or theoretical analysis. According to Schneider et al. (2010), a degrowth perspective should avoid reductionism of all kinds therefore it would welcome the diversity and the complementarity of numerous strategies. However, which strategy is needed and the priority given to each remains subject of debate. Schneider et al. (2010) also point out that degrowth should not be mistaken with negative growth or zero growth because it does not represent a shift towards downward economic fluctuations. Instead degrowth is a political choice that voluntarily reduces the use of energy and materials, through a redefinition of our needs.

One of the most important questions for degrowth scholars is whether we can achieve degrowth within capitalist economies because from the previous section we saw that capitalists' logic inherently needs to grow. Degrowth scholars don't completely ignore the question of capitalism.

However, they often elude it. For example, Jackson (2009:202) asks: “Is it still capitalism? Does it really matter? For those for whom it does matter, perhaps we could just paraphrase Star Trek’s Spock and agree that it’s ‘capitalism Jim. But not as we know it’”.

Smith (2010) does agree that we need to economically downscale but there are three key issues with the degrowth model. First Smith (2010) argues that degrowth theorists can’t possibly understand how capitalism functions because zero growth is not possible in a capitalist economy. He points out to the “Grow or die” law of survival of capitalism:

1. division of labour raises productivity and output, which drives producers to find new markets for new products;
2. competition pushes producers to conquer market share to benefit from economies of scale and be able to re-invest more in technological improvements; and
3. modern corporations are under sustained pressure by shareholders to grow in order to maximize profits (Smith, 2010: 29).

According to Smith (2016), it is a mistake to think of getting rid of growth as a component replacement because growth is not like a broken air conditioning unit in a house, which can be removed leaving the rest of the house to function almost the way it did before. Growth is not an element in society that can be taken out and a non-growth element put in its place. Growth is a fundamental part of our economic system. Our economic system is driven by growth and cannot operate without it. For Smith (2016:33) " It is not that this society has a growth economy; it is that this is a growth society. Jackson (2009) has pointed out that there are some capitalist economies that do not grow. Although capitalist countries with low or no growth exist, such as

Burundi or Ethiopia, they are not countries which could be considered socially just, because of high levels of poverty (Garcia, 2012). Therefore, these countries cannot be used as evidence that social justice, degrowth, and capitalism are possible. Secondly any degrowth in the economy which sharply reduces CO2 emissions would bring economic collapse before it brought sustainability, and there there is just no way around this dilemma. With no way to dematerialize production we can't grow the economy without growing emissions. Therefore, cutting CO2 emissions by even 50% would require closing a significant numbers of large and small corporations around the world and that means a falling the global GDP with all that implies (falling of unemployment rate, falling stock market indices). We can't save humanity unless we radically degrow the over-consuming economies in the North. So we do need degrowth. But the only way to get "managed degrowth" without ending up in another Great Depression is to do so in an entirely different, non-market or mostly non-market economy. The third issue which Smith (2016) highlights is that we don't need to degrow the entire economy. Instead we need to get rid of useless, wasteful, polluting, harmful industries. While growing other parts of the economy such as renewable energy, public health care, public transit and environmental remediation.



### **Q3: ARE THERE ALTERNATIVES TO CAPITALISM ?**

It is unacceptable to be anti-capitalist in spheres of power. Capitalism is even asserted by critics of neoliberalism as the best way of organizing our economy. It may have some unfortunate consequences, but it constitutes the apotheosis of human history. Capitalism is the bearer of democracy, modernity, and technological innovation. Why should we want anything else?

Following the work of two economic geographers, Julie Graham, and Katherine Gibson, this paper explores discourse that argues capitalism is the only option and demonstrates that anti-capitalist alternatives exist. The paper engages with their argument that how we think and describe capitalism is a barrier to the emergence of alternative economic spaces. Gibson-Graham (1996) do not assert that we can think our way out of capitalism; they demonstrate how capitalism can be theorized in a way that represents dominance as a natural and inevitable feature of its being (Gibson-Graham 1996). Gibson-Graham's research enables us to refocus our perceptions of the economy by raising questions about assumptions of capitalism's hegemony. They illustrate how the economy is diverse, consisting of a hybrid of non-capitalist and capitalist processes, relationships and institutions. Gibson and Graham (1996) have prominently contributed to the discourse of alternative economic spaces. Gibson-Graham (1996) take a post-structuralist lens in their work which allows them critically to examine the role of language and discourse as productive of, rather than representations of, the social and natural world. Within the framework of post-structuralism, "enlightenment notions such as unity, reality, objectivity, and truth are critiqued and historically situated in social space and time" (Derickson, 2009:5). Post-structuralists understand these concepts as inherently Western and dependent on a problematic logic and epistemology based on binaries (Derickson, 2009). Post-structuralism attributes this

problematic logic for producing various oppressive relations, such as patriarchy, racism, and heteronormativity, which rely on a binary relationship of negation (e.g. male/not male; white/not white) (Derickson, 2009). From a post-structural lens, the path to changing power relations is not to take power from the powerful and transform the material relations of oppression. Rather, post-structuralists argue “one must use the productive power of representation and discourse to create social spaces which suppress the restrictive and oppressive grammar of binaries” (Derickson, 2009:5).

Central to Gibson-Graham’s (1996) argument is that although historically left theory has contributed to political action its understandings and images of capitalism can be viewed as contributing to a crisis in left politics, where people find it difficult to imagine capitalism’s suppression or alternative economic spaces. According to Gibson-Graham (1996), Marxism has distorted the way we understand capitalism and has hidden its non-capitalist components. The current economic and ecological crisis has created substantial interest in Marxist theory as a tool to critically understand how capitalism functions but according to Gibson-Graham understanding the beast has produced a beast. Marxists have theorized capitalism as triumphant, penetrating, and expansive while other forms of economy are theorized as being vanquished and marginalized subordinate or inferior states of economic being. The relation of capitalism to non capitalism follows the familiar binary structure where capitalism constitutes positivity and fullness and non-capitalism is regarded as negative and lacking. Gibson-Graham (2006) calls this binary capitalocentrism. Capitalocentrism is a term coined by Gibson-Graham (2006) to describe how other forms of the economy and noneconomic aspects of social life are often understood primarily with reference to capitalism as being fundamentally the same as capitalism, deficient to

capitalism, opposite of capitalism or complementary of capitalism. Capitalocentrism in this context involves situating capitalism at the center of development narratives, and devaluing and marginalizing possibilities of non-capitalist development. (Gibson-Graham, 1996). Gibson-Graham is essentially urging us to look deeper into the ideology of capitalism and see what's going on. What does the economy look like? Is it capitalist?

To problematize the features which sustain capitalism's dominance Gibson-Graham draw on Althusser's (1972) concept overdetermination . Althusser (1979:253), defines overdetermination as “the effects of the contradictions in each practice constituting the social formation [economic, political, ideological, and theoretical] on the social formation as a whole, and hence back to each practice and each contradiction”. The concept of overdetermination is meant to create a space for a non-economistic, non-reductionist historical materialism (Althusser, 1979). According to Gibson-Graham (1996) when looking at a capitalist site through the lens of overdetermination one can no longer assume that a capitalist enterprise is interested in maximizing profits or exploitation. By adopting Althusser's concept of overdetermination to the economy, Gibson-Graham are able to overthrow the view of capitalism as a unified system that is driven by internal logics. This allows them to empty capitalism of its universal attributes and remove the essentialist logics that allows it to dominate. By challenging the idea that capitalism has an internal logic that supersedes all social processes Gibson-Graham, (1996) open a space to foster other alternative economic forms.

One of the most important aspects of using an over-determinist strategy is that it allows Gibson-Graham (1996) to re-conceptualize the economy differently to reveal alternative economic

spaces. For Gibson-Graham (1996) re-conceptualizing the economy does not only involve bringing minority practices to light. Re-conceptualizing the economy also involves opening up the entire economic sphere to resignification, which involves the view that knowledge is neither neutral or singular. Instead, “multiple, politically inflected knowledges coexist in unstable relations of dominance and subordination”(Gibson-Graham, 1996:120). Rereading the economy also involves drawing from both academic and popular knowledge to bring what is hidden into visibility. According to Gibson-Graham (1996), we empower social and political possibilities by rereading the economy. Gibson-Graham (1996) do acknowledge that language will never be enough; they believe that the project of rereading the economy is important because representation is powerful and visibility as a project can have transformative powers. Furthermore, creating alternative economies involves creating a language of economic difference, where alternative economic projects are developed, validated and become materialized (Gibson-Graham, 1996).

For Gibson-Graham (1996), there are four specific theorized features of capitalism which Marxists notoriously use that sustains its dominance: unity, singularity, totality and its ability to expand. Capitalism is often represented as a unified system rather than as a set of a partial, incomplete and contradictory practices scattered over the globe. For example, Marxist conceptions highlight the crises inherent in capitalist development. However, capitalist crises can be seen as a unifying process. Often crises are presented as originating at the center of a capitalist society, be it the relationship between capital and labor or the process of capital accumulation. These crises usually radiate outward destabilizing the entire economy. Recovery is also a process of a unified system. Capitalism cannot be partially transformed, chipped away at gradually or

removed piecemeal; it must be completely transformed. Capitalism can be altered or reformed, but it cannot be replaced, except through some arduous struggle. Efforts to suppress capitalism can always be undermined by capitalism at another scale or in another dimension. One of the effects of the unity of capitalism is that it presents the task of a complete systemic transformation (Gibson-Graham, 1996).

According to Gibson-Graham (1996), the unity of capitalism delivers us with the task of systemic transformation but the singularity of capitalism makes that task hopeless. In Gibson-Graham (1996) search demonstrates how Marxists often present capitalism as a singularity existing in a category by itself with no equivalent. Capitalism also tends to dominate alone and has no true rivals, independent commodity production, feudalism, socialism, primitive communism and other forms of the economy all lack the needed properties to reproduce and expand themselves. Also, no other economic forms fully coexist with capitalism. Where capitalism does coexist with other forms as in the Global South these nations are not seen as fully developed. The effect of capitalism's inability to coexist produces the impossibility of alternatives (Gibson-Graham, 1996).

The third characteristic of capitalism is its totality. People who are not involved in capitalist exploitation may be seen to live in capitalism, within capitalism or under capitalism. Capitalism is presented as the container of life and non-capitalist forms of production, such as self-employed workers or the production of household goods and services, are all seen as taking place within capitalism. From this rationale, we cannot get outside capitalism because it has no outside. The banking system, the national state, domestic production, the built environment, nature as product,

media, culture are therefore all conditions of capitalism's totalizing existence and lose all their autonomy and their contradictory capability to be read as conditions of its nonexistence. The left is then presented with the revolutionary task of transforming the entire economy (Gibson-Graham, 1996).

The fourth characteristic of capitalism's dominance is its ability to expand (globalization). Gibson-Graham (1996:21) refers to globalization, as “the set of processes by which the world is rapidly being integrated into one economic space via increased international trade, the internationalization of production and financial markets, the internationalization of a commodity culture promoted by an increasingly networked global telecommunications system. Gibson-Graham (1996) argue that in the globalization narrative, capitalism is represented as stronger than non-capitalist models (Third World economies, socialist economies, communal experiments). Capitalism's natural dominance is also presumed because of its capacity to universalize the market for capitalist commodities. Gibson-Graham (1996) also notes that the discourse surrounding globalization has tended to mimic the rape script illustrating the familiar metaphor of global economic development as an invasion of virgin territory. By comparing globalization to the rape script Gibson-Graham (1996) opens the possibility of deconstructing globalization as feminist theorists have deconstructed gender. The globalization discourse usually involves the violation and eventual subordination of non-capitalist economic forms and involves the penetrating of other economic relations but not the other way around because only capitalism is capable of spreading. After non-capitalist economic forms experience penetration by commodification, and corporatization they become subordinated to capitalism.

Gibson-Graham (1996) believe globalization is not as penetrating as Marxists believe because there is considerable overlap between the economies that engage in transnational investment and those that are its hosts. Therefore, what we know as globalization is not a rape of non-capitalist regions. Gibson-Graham (1996) also asserts that where capitalist development does occur between first and Third World economies, we should not assume that capitalism spreads in a straightforward way. Gibson-Graham (1996:132) provides the proliferation of wage work by Third World women as an example “capitalist exploitation has freed them from aspects of the exploitation associated with their household class positions and has given them a position from which to struggle with and redefine traditional gender roles”. All of this is not to deny power or the prevalence of capitalism but to question its dominance. According to Gibson-Graham (1996), it is legitimate to theorize capitalist hegemony only if this hegemony is described in a theoretical field that allows for the possibility of the full coexistence of non-capitalist economic forms. Otherwise, capitalist hegemony is just a presumption (Gibson-Graham, 1996).

Gibson-Graham’s (1996; 2006; 2008) work demonstrates the existence and significance of a wide range of non-capitalist practices and institutions which, they argue, are obscured by the dominant discourses of capitalism. Gibson-Graham (1996; 2006; 2008) work makes an important contribution to post-capitalist literature because it raises questions about capitalism's hegemony, but it also by opening up different non-capitalist spaces. It is a core argument of their work that alternative economic worlds are not only possible, but that they already exist in the present.

## **UTOPIAS VS REAL LIFE STRUGGLES**

Yet despite Gibson-Graham’s range of non-capitalist practices the myth that there is no alternative to our

current socio-economic system still prevails. In this way, capitalism is an effective system in that it creates producers and consumers who accept the myth that there is no alternative (Swift, 2014). According to Swift (2014:34) “the thing about hegemonic discourses such as capitalism is that when you are part of it, it is difficult to see it... has come to define what is normal”. As a result, when challenged the response tends to be there is no alternative because capitalist thinking is firmly entrenched in the way many of us see the world (Swift, 2014). However, are we supposed to believe that an economic system which is based on limitless growth, repeated bust and boom cycles, extreme levels of social inequality and ecological destruction is the best that society can do? Many alternatives exist, “all societies choose consciously or not, democratically or not, ways to organize, most modern societies have simply chosen capitalism in some form” (Serrano and Xhafa, 2011:8 ). The idea that there are no practical alternatives hinders our ability to imagine alternative futures and makes it difficult for movements to advance the changes we need. There is hope, a growing momentum to rethink and renew discourses on alternatives to capitalism has been growing in the recent years. The history of alternative and imagined futures has a long tradition. Utopian thinking arguably goes back to “Plato’s idea of an enlightened oligarchy ruling over his Republic” (Swift, 2014:76). Whether viewed as an escapist daydream, philosophical reflection, or a practical strategy for social transformation, utopias primarily have been theorized as the imagination of a better world.

This final section looks at the idea of a diversity of alternatives coexisting, something Foucault has called heterotopia. Exploring Michel Foucault’s definitions of heterotopia, the section highlights how it can be useful in alternative (to capitalism) discourses. Foucault was a French historian and philosopher; and arguably one of the most influential social theorists of the second half of the twentieth century and disciplines such as history, psychology, philosophy and sociology. The second part of the section analyzes the Mondragón Cooperative Corporation as a



collective experience that can be argued to have produced heterotopic spaces inside and beyond dominant capitalist spaces.

The utopian impulse was rejected for its universal ideals which lead to the partial abandonment of the concept (Swift, 2014). According to Gindin (2000:36), “we live in an era of foreclosed hope in the possibility of a better world. Even people who look at their lives and wonder if that is all there is see no way of realizing a life beyond capitalism or fear that any attempt to do so can only result in another nightmare”. However, Swift (2014) notes that even though it has become more difficult for us to find alternative futures this should not signify the death of the utopian imagination. Swift (2014) believes that keeping the utopian imagination alive is the most important issue for anyone who takes the concept of alternative seriously.

Coming up with an alternative to replace our socio-economic system can fall into the trap where we believe that one single set of arrangements is appropriate for all societies around the world, and the belief that it is up to the West to decide what these arrangements will look like. Therefore, multiple versions of alternatives are important because no one model can fit a diversity of locations. Instead, alternative visions will differ according to the context. However, they can contain lessons that can be applied elsewhere. We need to consider that the revolution might not be global, national, state-based or even territorial, so we must look to the possibilities already within. So, instead of looking for one alternative, we should “search for gems among the rubble: recognizing already existing bits and pieces of alternative, imperfect solutions (Serrano & Xhafa, 2011:9). The concept of heterotopia is useful because it allows for the exploration of “liberatory alternatives”. However, it avoids the errors of traditional utopian formulations.

Heterotopia avoids utopianism by insisting that alternatives should emerge out of critical and practical engagements with the institutions, personal behaviours, and practices that currently exist (Hetherington, 1997). Therefore, heteropian spaces are interested in transformation (Hetherington, 1997).

The term heterotopia originates from the medical field where it refers to an organ that is in the wrong location. Broader use of the concept of heterotopia grew after the publication of Foucault's lecture notes (Topika, 2010). According to Genocchio (1995), two contradictory versions of heterotopia exist in Foucault's work. Foucault uses the term as an actual site and as a discursive space. However, Foucault defines his concept of heterotopia most fully in his 1986 essay *Of Other Spaces*. Foucault (1962:2) suggests that "heterotopias are disturbing, probably because they secretly undermine language, because they make it impossible to name this and that, because they shatter or tangle common names, because they destroy 'syntax' in advance, and not only the syntax with which we construct sentences but also that less apparent syntax which causes words and things (next to and also opposite one another) to 'hold together' ". In *Of Other Spaces* Foucault defines two types of heterotopias: heterotopias of crisis, which are sacred and forbidden places for people in a state of crisis such as menstruating women, pregnant women, the elderly (Topika, 2010); and heterotopias of deviance which represent sites for people whose actions deviate from the norms such as prisons, psychiatric hospitals, and rest homes (Topika, 2010). In *Of Other Spaces Foucault* (1986) also outlines six principles of heterotopia.

The first principle of heterotopias is that every human culture has them. However, they take heterogeneous forms (Foucault, 1986). The second principle of heterotopias is that society can

make them function in different ways and their use can be refashioned over time (Foucault, 1986). The third principle is that heterotopias juxtapose real and incompatible spaces in one space. The fourth principle is heterotopias are connected with time, both the accumulation of time, such as museums and the fleetingness of time, such as festivals (Foucault, 1986). The fifth principle is that it requires a system of opening and closing that isolates them from other spaces, however, they still retain their penetrability (Foucault, 1986). The sixth and final principle is heterotopias have a function in relation to all other sites (Foucault, 1986).

According to Topika, (2010:4) the concept of heterotopia allows Foucault (1986) to “escape the world of norms and structures that imprison the human imagination and through a study of the history of space and an understanding of their heterogeneity, identify spaces in which difference, alterity, and ‘the other’ might flourish or actually be constructed”. For Foucault (1968:3) society should have many heterotopias “because these spaces affirm difference through their multiple interpretations, thereby challenging the hegemony of single utopias”.

Harvey (2000) has pointed out that the concept of heterotopia is important because it allows us to think of utopia not as something unachievable but as a continuous process grounded in existing social processes. Harvey (2000) asks in his book *Spaces of Hope* what kind of utopianism might contribute to political change. Harvey (2000) highlights two forms of utopia, utopia of the spatial form and utopia of the social process. According to Harvey (2000:155), we must “reconnect spatiality and temporality because traditional utopianism has severed them leaving us torn between dreams that seem unrealizable and prospects that hardly seem to matter”. Harvey believes that reconnecting spatiality and temporality can help us imagine and work toward real

alternatives for current conditions. Harvey (2000) explains that utopianism's of spatial form open a wide range of possible social scenarios. However, they end up being moulded and controlled by the existing historical and social processes that they intend to replace (Harvey, 2000). Utopias of social processes, on the other hand, have to negotiate with spatiality and the geography of place and as a result, they lose the unique character and end up producing results that are not intended such as increasing authoritarianism rather than increasing democracy (Harvey, 2000). In order to avoid this dilemma, Harvey (2000) suggests it is necessary to ground social processes in spatial forms. A spatial-temporal utopia where the production of space and time is incorporated is what Harvey (2000) calls dialectical utopianism. Heterotopian spaces are similar to Harvey's dialectical utopianism. They both are heterogeneous spaces that accommodate a simultaneity of difference and multiple alternatives, diversity, and difference, what Louis Marin calls utopics spatial play (Hetherington, 1997). Both concepts allow for us to think about multiple utopian programs that can all coexist as potential (Harvey, 2000). Why heterotopia rather than heterogeneity since the emphasis is on multiplicity? According to Hetherington (1997), the strength of heterotopia lies in the concept of space. For Hetherington (1997), politics is not necessarily the struggle for power but instead the emergence of a certain type of space and time. Because heterotopian spaces are heterogeneous spaces that accommodate a simultaneity of difference and multiple alternatives it can be useful when applied to creating and understanding non-capitalist spaces. The concept of heterotopia allows us to view anti-capitalist spaces as social laboratories in which social changes are considered, where new forms of alternatives can form be tried out, experienced and eventually spread (Hetherington, 1997). It is important to note that although Foucault characterizes heterotopias as effectively realized utopias he doesn't propose heterotopias as sites of resistance and doesn't link the concept with

any form of liberation. Though Hetherington, (1997:43) argues that “it is difficult to resist the temptation of reading heterotopia as not merely a space of otherness, but as a mechanism against existing forms of power”. As a counter space that contests dominant regimes of truth, heterotopia can function as an important approach to struggle against capitalism. By deconstructing conventional practices heterotopian spaces can create processes of social transformation (Hetherington, 1997). Edward Soja (1996:63) highlights that “heterotopias are not just other spaces to be added on to the geographical imagination; their otherness consists in their ability to challenge the orthodox ways of thinking spatially. They are meant to deconstruct, not to be comfortably be poured back into old containers”. However Reis (2006) believes that one must be careful with a simplistic relationship between politics and space because a position of alterity by itself does create resistance or critique dominant discourses. So it is not the otherness of a space in itself that is significant, rather its relationship to the dominate sources of power. Therefore, heterotopic sites must be analyzed according to whether it can challenge and transform or strengthen and reinforces dominant discourses. Hetherington (1997) further adds that heterotopias do not exist by themselves instead it is the heterogeneous combination of the materiality, social practices, and events that are located at this site and what the site represents in contrast with other sites is what we call heterotopia. They are created every time a space becomes heterogeneous and non-hegemonic, where outcomes are uncertain, alternative are considered and common sense is questioned (Reis, 2006). According to Reis (2006), heterotopias are born when a context is created that makes heterogeneity possible. In this way, creating change does not necessarily have to arise out of a conscious plan, rather out of people actions as they seek meaning in their daily lives. Such practices create heterotopic spaces. We do not have

to wait upon the grand revolution to alternative spaces which can be shown in the in the workers cooperative movement.

The Mondragon Cooperative Corporation is one of the world's most famous cooperative organizations. Under the guide of Catholic priest Don José María Arizmendiarieta, the Mondragon Cooperative Corporation is one of the most successful employee-owned industrial, retail, service, and support cooperatives in the world (Flecha and Cruz, 2011). The story of the Mondragon cooperatives doesn't begin with the industrial cooperatives but with a group of five men and a priest, committed to building a better community out of the destruction of the Spanish Civil War (Adler and Adler, 1989). In the Mondragon cooperative corporation's first phase, it was the local and national environment which created the structuring of the first cooperative. The postwar period left the city of Mondragon in widespread poverty (Adler and Adler, 1989). Drawing inspiration from the Catholic Action Movement, in 1941 Arizmendiarieta began to form study circles with youth from the community of Mondragon to identify local problems that they could work to resolve (Adler and Adler, 1989). Arizmendiarieta eventually established a vocational school for Mondragon's working-class children and under his wing five of the school's graduates went on to start their first cooperative in Mondragon (Adler and Adler, 1989).

Today the Mondragon Cooperative is well known for its longevity, cutting-edge technology, and innovations in worker participation. The cooperative is principally located mostly in the Alto Deba County of Spain (Flecha, R., and Cruz, 2011). The Cooperative is a network of over 200 individual cooperatives working across numerous sectors (Flecha, R., and Cruz, 2011). The Mondragon Cooperative Corporation has 80,000 workers, and approximately 80% are owner-

members (Flecha, R., and Cruz, 2011). Alto Deba is one of the only regions in Spain that created employment during the economic crises over the past few years (Redondo et al., 2011). Between 2009 and 2010 unemployment dropped by 9.87% there while it rose by 13.5% in Bilbao (Redondo et al., 2011). Similar trends also occurred in previous crisis, between 1976 and 1986 Mondragon was able to create 3,3% more jobs each year, while unemployment was increasing in Spain as a whole; mainly because the Mondragon Cooperative functions very differently from capitalist organizations (Flecha, R., and Cruz, 2011). For example, workers participate in decision making which directly affects their lives such as pay scales (Flecha, R., & Cruz, 2011). The majority of the profits go to the workers (Flecha, R., and Cruz, 2011). Profits from one cooperative can be used to keep struggling cooperatives operating in times of crisis (Flecha, R., and Cruz, 2011). Workers who find themselves unemployed can be transferred to other coops in the network to maintain stable employment (Flecha, R., and Cruz, 2011). There is criticism that overtime the Mondragon Cooperative Corporation has become more capitalist. However, the cooperative remains significantly different from contemporary capitalist firms. The Mondragon Cooperative Corporation provides strong evidence workers are capable of managing the means of production and addressing their marginalization through participation in democratic decision making. The experience of working in a cooperative also provides workers greater awareness and the capacity to transform current socio-economic relations, in the workplace, the community, and eventually in the larger society. Creating an alternative future means trying to create and experience spatial arrangements which foster different social relations. According to Reis (2006), people not only experience space but they also think and imagine through space. Therefore, space not only gives form to the existing social world but also to possible social worlds that may inspire action and express collective desires. The cooperatives function in opposition to

capitalism's logic because they vary from the capitalist organization of production. For example workers own and invest in the business. The cooperatives function as social laboratories in which social changes are considered, tried out, experienced and eventually spread.



## **CONCLUSION: ARE ALTERNATIVES POSSIBLE?**

We are facing an intertwined and complex set of crises which involve environmental, economic, social dimensions. All of these crises are part of a whole and cannot be solved without addressing the others. This systemic crisis stems from the capitalist system and its need to expand at the expense of the planet. The current capitalist system has led to the economic crisis which has brought about extreme levels of social inequality and the erosion of democracy and the ecological crisis, which has destroyed natural resources due to its need for limitless growth. Capitalism has yet to implode on its internal contradictions, instead it is constantly being reconstructed in order to expand and increase profits. Capitalism in the past has shown great flexibility to adapt and create options for its expansion and according to Sarana and Xhaf's (2011:15) only when we deepen our understanding of the process of reconfiguration of capitalism we can begin to construct alternatives to the current system.

“Pessimism of the intellect, optimism of the will”; Antonio Gramsci's (1971:188) adage provides a starting point for tackling the crises of capitalism and the search for alternatives. We live in a generation where the idea of a world without capitalism seems unimaginable and the myth that there is no alternative still prevails. Today we are in need of the optimism of the will and intellect because alternatives do exist. There are many studies of alternative economic spaces, and the body of research is continuing to grow. Despite a growing body of research, it is important to remember that the “potential for exploitation still exists within alternative economic activities: (Gibson-Graham, 2008:15). Therefore, we need for a historical geography of alternative economic spaces which grounds discussions of the alterity in the past. Gibson-Graham (2008) fear that we will develop an ahistorical account of alterity under capitalism. They

suggest new directions for research should include the need to further explore gender, class and racial inequalities in alternative economic spaces. Overcoming capitalism will require a new vision of society, a vision where there is not just one alternative but instead a complementary of visions that seek to build multiple alternatives. There are a diversity of realities on the planet, therefore we require various alternative systems.

Alternative economic models are emerging all around us such as participatory economics and the sharing economy, but a lot more research development, and experimenting needs to occur. Gibson-Graham's (2008) work on diverse economies is a starting point. The diverse economy is a "theoretical proposition that economies are intrinsically heterogeneous spaces composed of multiple class processes, mechanisms of exchange, forms of labor and remuneration, finance, and ownership" (Healy, 2009: 338). Gibson-Graham's (2008) work on diverse economy expands our understanding of what makes up the economy. Gibson-Graham (2008) argue that although the dominant view is that capitalism is the main economic system globally this is not the case because large populations of the world sustain livelihoods with activities that mainstream economics don't take into consideration as part of the economy.

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