

The Multiplicity of the Commons: An Ontological Perspective on the Tragedy of the Commodity

Janne Säynäjäkangas

University of Jyväskylä

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While the essence of capitalism is not metaphysical, the essence of metaphysics is capitalist

(Toscano, 2014, 1226)

Abstract

The present conference paper, written for the *6th International Degrowth Conference in Malmö* endeavors to show that ontology offers a revealing window on the interconnection of social structures, depletion of natural resources and theoretical models. It focuses on *the tragedy of the commodity*, an approach that challenges Garrett Hardin's famous thesis of *the tragedy of the commons* as an explanation to overuse and degradation of resources. While the creators of the concept, Stefano Longo, Rebecca Clausen and Brett Clark, have focused to overuse in the context of fisheries (2016), the present paper expands the tragedy of the commodity approach toward a more general theory, based on philosophical ontology. This undertaking consists of utilizing the concept of tragedy of the commodity in exploring the relationship between commodification and the commons on a more general level from an ontological point of view. The thesis that exchange value plays dominating role in relation to use values in commodification serves as the starting point. Utilizing Alain Badiou's ontological analysis of the relationship between the one and the multiple as the theoretical framework, it is argued that the commodity is inherently one due to it being dominated by exchange value whereas the commons, being essentially use values, are inherently multiple.

1 Introduction

One of the great social and environmental problems that we are facing today is overconsumption, that is, withdrawal of resources on a rate that exceeds that of renewal. According to the estimation of Global Footprint Network, our total consumption exceeds planetary capacity by 1.7 times¹ One of the most influential ideas concerning the social factors behind overconsumption is the “tragedy of the commons,” made famous by Garrett Hardin². According to this idea, competition among individuals over shared resources, “the commons”, will result in degradation of resources unless restrictions in the form of state regulation or privatization are imposed.

While Hardin’s argument has been subject to controversy and dispute since its inception, the debate around it has gained fresh momentum due to increasing concern about environmental issues and new arguments challenging Hardin’s presumptions. As Ostrom³ points out, Hardin’s model views overconsumption as a “natural state” to which the only remedy can be a “Leviathan”, an external force capable of limiting individuals’ natural tendencies. One recent and powerful argument challenging this view is the “tragedy of the commodity”, an alternative approach that views overconsumption not as a universal human condition, but as a socially and historically specific phenomenon, which, upon closer inspection of the actual cases, is often closely connected to the commodification of natural resources.

The tragedy of the commodity approach helps to understand how the commodification of resources creates situations favorable for overuse in the first place, and how attempts to fix the problem through further privatization, (e.g. through fishing quotas), can do more harm than good. In a merely preliminary and a very broad sense, commodification can be defined as an entry of anything to the sphere of exchange. When a thing is commodified, it becomes subject to buying and selling. While the creators of the tragedy of the commodity approach, Stefano Longo, Rebecca Clausen and Brett Clark, have focused on overuse in the context of fisheries (2016), the aim of the present conference paper is to expand the tragedy of the commodity approach to develop a more general, ontological approach to issues concerning the use of natural resources. The concept of the tragedy of the commodity is utilized to explore the relationship between commodification and the commons from an ontological point of view.

First, drawing on the analysis of the tragedy of the commodity approach as described by Longo, Clausen and Clark, it is argued here that the tragedy of the commodity can be formulated in ontological terms by focusing on the dominating role of exchange value in relation to use values. Second, German economist and philosopher Alfred Sohn-Rethel’s concept of real abstraction is

¹Global Footprint network measures demand and supply of nature by size of *ecological footprint*(Global Footprint Network, 2018). Although the ecological footprint has been heavily criticized as an ecological indicator, the overuse of resources on a planetary scale remains a fact: the main criticism against the ecological footprint is that it underestimates human impact on environment(Blomqvist et al., 2013).

²(Hardin, 1968)

³(Ostrom, 1990)

introduced. The theory of real abstraction helps to explore how exchange affects our relationship with the world and each other. Third, using Alain Badiou's ontological analysis of the relationship between the one and the multiple as a theoretical framework, it is claimed that the commodity is inherently one as it is dominated by exchange value, whereas the commons, being essentially use values, are inherently multiple. Finally, it is suggested, that the gap between the one and the multiple is unbridgeable. Consequently, the solutions to the problems of the commons that are based on commodification and privatization risk missing their target not only on a practical, but on an ontological level as well.

2 The Tragedy of What?

Although the aim of the present inquiry is not to provide a thorough analysis or criticism of Garrett Hardin's reasoning, in order to understand the *tragedy of the commodity* approach it is necessary to outline the *tragedy of the commons* thesis and highlight its universal influence not only in theory but also in the practice of resource management. There is plenty of literature available on why Hardin's thesis can be rejected as the the universally viable model it was intended to be. However, it's still possible to ask if there exists situations that satisfy the particular conditions supposed by Hardin as universal that enable the scenario depicted by Hardin to unfold specific contexts. Considering the enormous impact of Hardin's article it is also important to ask what kind of results are produced by action that is informed by the tragedy of the commons thesis: notwithstanding its theoretical weaknesses, can it still provide beneficial guidelines for policy-making, or is it rather the case that the unthinking adoption of Hardin's doctrine might rather perpetuate the very tragedy Hardin described? These questions are partly answered in an empirically informed manner in the context of fisheries by Longo, Clark and Clausen and their tragedy of the commodity approach. The aim of this article is to consider the ontological implications of their answers.

2.1 The Tragedy of the Commons

Garrett Hardin's paper "The Tragedy of The Commons" (1968), which developed the original thesis by William Foster Lloyd and made it widely known, is arguably one of the most influential scientific articles ever written. Although initially adressing what he calls "the population problem" Hardin arrives at a more general conclusion according to which the only way to prevent degradation of resources is through what he calls "coercion". Coercion in this case means restricting free use of resources by imposing private property rights or by means of state control.

Hardin's reasoning is based on a thought experiment that conjures up a picture of a pasture open to all, used by herders as grazing grounds for their animals. "Each herdsman seeks to maximize his gain", which happens by means

of "consciously or unconsciously" calculating the utility of adding one more animal on the pasture. According to Hardin this utility has one positive and one negative component:

- 1) The positive component is a function of the increment of one animal. Since the herdsman receives all the proceeds from the sale of the additional animal, the positive utility is nearly +1.
- 2) The negative component is a function of the additional overgrazing created by one more animal. Since, however, the effects of overgrazing are shared by all the herdsmen, the negative utility for any particular decision-making herdsman is only a fraction of -1.⁴

An individual herder obtains all the positive utility (+1) of adding one animal on the pasture, while the negative utility caused by overgrazing is shared by all the herders. Consequently, maximization of gain in this case means adding the maximum amount of animals on the pasture.

It is clear that animal husbandry is only an example, and Hardin's interests lie in different direction. However, considering the abundance of population-related remarks in the text, one could be excused for thinking that the infamous pasture is actually a metaphor for overpopulation. For example, a section of the article has the title "Conscience is Self-Eliminating", under which Hardin argues that appealing to morality doesn't help to prevent overpopulation and might even worsen the situation: those who refuse to breed for moral reasons will perish in the competition, thus inevitably removing the ability to resist the urge to have babies for moral reasons from the gene pool.⁵ However, the pasture metaphor is not a metaphor for overpopulation in particular, but for the overuse of resources in general. Hardin gives examples of different commons that show that he views the tragedy of commons thesis to be applicable to a diverse variety of topics: national parks, parking space, pollution, hunting, fishing, sound in the public areas, television and radio. So why does Hardin emphasize the question of population? Hardin's reasoning seems to be that when the density of population is low, many resources can be regarded as practically infinite, while, vice versa, when the population grows the scarcity of resources becomes more pressing reality, thus setting the scene for the tragedy of the commons.

Hardin's model makes better sense if we take a look at the work of Nobel Prize winner Elinor Ostrom, and especially her *Governing The Commons* (1990). Ostrom provides useful terminology, that is used in this paper from here on. Instead of "pasture" it is more accurate to speak of *common-pool resources* (CPR). The term refers to a "natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use."⁶ To better understand the metaphors of cows and pasture, the distinction between *resource systems* and the flow of *resource units* must be made. The pasture is a resource system

⁴(Hardin, 1968, 1244)

⁵(Hardin, 1968, 1246)

⁶(Ostrom, 1990, 30)

and the cows are resource units: “Resource systems are best thought of as stock variables that are capable, under favorable conditions, of producing a maximum quantity of a flow variable without harming the stock or the resource system itself.”⁷ Finally, the term *appropriators* can be used to refer to “herders, fishers, irrigators, commuters, and anyone else who appropriates resource units from some type of resource system.”⁸ It must be added that CPRs are finite: not an infinitely large flow of resources can be drawn from a resource system without exhausting it.

As Ostrom points out, Hardin’s model can, and has often been, formalized as a prisoner’s dilemma type of game⁹. In the prisoner’s dilemma, two prisoners in solitary confinement without means of communicating have two options: they can either betray the other by testifying or stay silent. If both stay silent, both will have the minimal sentence: one year in prison. If they betray each other, both will serve two years. If one betrays, while the other stays silent, the traitor will be set free, while the loyal one will serve the maximum sentence: three years. Thus cooperation would be the best choice considering the total years (2) in prison, while mutual betrayal would be the worst (4 years). However, if we suppose that the prisoners are rational actors who seek to maximize their gain, they will betray each other, because betrayal is the choice that most likely maximizes one’s own gain. To see the correspondence with Hardin’s model all we need to do is to replace reduced years in prison with resource units. Appropriating a resource unit yields a certain amount of individual gain while being disadvantageous to others. The cooperative strategy, yielding greatest joint benefits, is to abstain from increasing the amount of animals, and so on.

Ostrom takes her departure from the tragedy of the commons and other theories that try to model human action as games of rational individuals, but makes modifications to the parameters of game to make them better correspond to empirical observations about real-world commons. The result of Ostrom’s research is a much more complex picture that undermines some of Hardin’s key presuppositions. First of all, Hardin supposes that only alternatives are “coercion” – state control imposed from the outset or individual ownership – or a total lack of rules concerning the use of the resources. In reality, as Ostrom argues, a much more diverse variety of institutional arrangements exists, some of which have been successful at preventing the degradation of resource systems for a very long time without state control or private ownership being a key factor.

However, there is one important presupposition in Hardin’s model that Ostrom doesn’t question. How do we actually know that withdrawing one resource unit from the resource system (adding one animal on the pasture) embodies the same utility (+1) or even any utility for each appropriator? It is not inconceivable, at least not in a priori sense, that certain resource units would have close to zero or even negative utility for some of the appropriators. Hardin doesn’t consider this question, although a remark he gives in a different

⁷(Ostrom, 1990, 30)

⁸(Ostrom, 1990, 31)

⁹(Ostrom, 1990, 3)

context seems like an accidental answer:

We want the maximum good per person; but what is good? To one person it is wilderness, to another it is ski lodges for thousands. To one it is estuaries to nourish ducks for hunters to shoot; to another it is factory land. Comparing one good with another is, we usually say, impossible because goods are incommensurable. Incommensurables cannot be compared. Theoretically this may be true; but in real life incommensurables *are* commensurable. Only a criterion of judgement and a system of weighting are needed. In nature the criterion is survival. Is it better for a species to be small and hideable, or large and powerful? Natural selection commensurates the incommensurables. The compromise achieved depends on a natural weighting of the values of the variables.¹⁰

However, this would be a disappointing answer. Adding ever more animals on the pasture is hardly comparable with natural selection. What, then, *commensurates the insommensurables* on the pastures or other commons? How does the *natural weighting of the values of variables* occur when individuals compete for resources?

Principles of utility and rationality are connected in Hardin's model. The attempt to maximize one's own gain in the form of utility is what defines rationality. Utility is commensurable in the sense that same action produces same amount of gain for everyone. If a herder would value the prevention of overgrazing more than adding more cows, or if the whole idea of animal husbandry would be objectionable for him, he wouldn't be playing the same game. Therefore both utility and rationality require some degree of commensurability. What makes the players of Hardin's game rational is that they play the same game which means that they have the same goal, namely, the attainment of the maximum amount of the same thing. Where does the commensurability of utility come from?

Although the observation of the empirical facts that render real-world social situations different from the prisoners dilemma, such as the possibility of communicating and engaging in trial-and-error has transformed the rationality principle into "an almost empty principle"¹¹ in Ostrom's work, rational choice nevertheless remains a central concept for her. Ostrom starts from simpler models in order to arrive at a point where the principles of rationality and utility have become so general and thin that they have almost, but only *almost*, disappeared. Rationality and utility are approached here in a different fashion. The present inquiry attempts to ground its theoretical considerations to the *historical element*¹² that is wanting in Hardin's presupposition of commensurability of utility. The exchange value incarnated in commodities is identified as this historical element. This argument is based on the *tragedy of the commodity* approach introduced in the next section.

¹⁰(Hardin, 1968, 1244)

¹¹(Ostrom, 1990, 38)

¹²(Marx, 1887, 261)

2.2 The Tragedy of the Commodity

In *The Tragedy of the Commodity* (2016) Stefano Longo, Rebecca Clausen and Brett Clark trace historical development of two fisheries: Atlantic salmon and Mediterranean tuna. In their development Longo, Clausen and Clark find a common trajectory.

Longo and his associates argue that, both Pacific salmon and Mediterranean tuna were used by humans in a way that can rightly be called sustainable. Fishing was connected to rich traditions, some of which date back thousands of years. These traditions regulated the fishing practices in ways that helped to prevent decrease of stocks. For example, both in the Mediterranean and the Pacific Northwest, the fishing season was restricted to certain part of the year, leaving the fish time to reproduce. The fish were mainly fished for sustenance, although fishing held social, cultural and religious significance as well. While Hardin's article supposes that the only reason why the tragedy of the commons wasn't so common until recently was lower population density, Longo, Clausen and Clark paint a very different picture where sustainability of the fisheries was often the result of cultural practices informed by local know-how accumulated through centuries or even millenia of interaction with the local ecosystem. Fishing practices were not organised so much according to the requisites of appropriating as many fish as possible, but rather in terms of sustaining a certain way of life.

The situation described above has changed. The twentieth century has seen an enormous decline in the stocks of both salmon and tuna. "It is estimated that all large predatory fish have seen a 90 percent decline in spawning stock biomass since the preindustrial level"¹³. In the case of salmon the authors write:

Salmon decline began in the late 1800s and continued on throughout the 1900s. At the end of the twentieth century, Pacific salmon were listed as endangered or threatened in thirty- four evolutionarily significant units along the coasts of California, Oregon, and Washington.

¹⁴

Longo and his associates link this decline to the rise of capitalism and the commodification of the marine species it has brought about. In relation to the decline in bluefin tuna stocks they write:

Capitalism is not the first system to exploit labor and nature, but it is the first to demonstrate the tragedy of the commodity. The social metabolic order is intensified, and the particular mechanisms by which generalized commodity production exploits is on a scale, scope, and pace far beyond preceding social systems. For example, traditional trap fisheries operated for thousands of years. They were highly successful operations, designed in a manner that supported the regeneration of bluefin tuna. However, the organization of this

¹³(Longo, 2015, 6)

¹⁴(Longo, 2015, 115)

fishing system constrained capitalist growth. For instance, the lack of consistency in captures was an ongoing problem for investors. Additionally, the labor process – where fishers largely controlled the practice – was seen as an impediment. Owners constantly tried to introduce new techniques to reorganize the labor process to produce more capital efficiencies. In an effort to sidestep reliance on traditional trap fisheries, fishing operations modernized and incorporated technologies from other fishing systems. Eventually, fleets of ships were used to harvest bluefin in bountiful numbers, causing a major decline in bluefin tuna stocks. Growth of profits is the sine qua non of generalized commodity production, and all judgments and decisions must be guided first toward expanding exchange value. Nothing is exempt from these dictates, not fish, ecosystems, or people. ¹⁵

The tragedy of the commons thesis doesn't accurately describe to what was going on in the Mediterranean Sea or on the Pacific Coast of North America until very recently. The use of the resources was regulated without a "Leviathan", without the help of private property or the state. However, the situation has begun to increasingly resemble the tragedy of the commons. The amount of fish is decreasing while fishers attempt to catch more and more fish.

The decrease of stocks and the threat it poses to the vitality of species is a problem in its own right, but the tragedy doesn't end there. For example, decreasing catches affect livelihood fishing and increase pressure to replace traditional, often more sustainable but also less efficient means of fishing by modern, less work-intensive technologies. Consequently, commodification forces fishers to replace the strategies and methods developed during a long period in interaction with the local ecosystem and intended mainly for sustenance fishing by an altogether different logic, more akin to the logic Hardin assumes to be the universal human strategy, that is, the maximizing one's gain by appropriating as many resource units as possible. Consequently, commodification brings about a social transformation towards a situation closer to Hardin's pessimistic vision.

Hardin would probably try to explain the decline in fish stocks by population growth, but increased demand for food to support the growing population can't explain why salmon and tuna are targeted and not other, more abundant species. The explanation is not the use value tuna and salmon have as a means of sustenance, but their high exchange value. The catches of tuna started to rise in the 1970s when the sushi industry became interested in tuna and it became a highly valued luxury commodity ¹⁶.

Indeed, probably the most important difference between the traditional fishing and the modern situation is the difference between motivations for fishing. According to the analysis of Longo, Clausen and Clark, fish traditionally had mainly use value, while modern fishing fleets have extracting exchange value from the seas as their sole purpose. For sure, the most important use value of the fish for the local fishers was as a source of nutrition. However, tuna

¹⁵(Longo, 2015, 152)

¹⁶(Longo, 2015, 87, 89)

in the Mediterranean and salmon in the Pacific Northwest were also integrally connected to local culture as whole, and contributed to the production of social and cultural use values. *The Tragedy of the Commodity* describes how a whole way of life was built around tuna at the Mediterranean:

The tonnara fishery was a persistent institution in Mediterranean culture. The system of fishing was not only a technological and material endeavor; a way of life emerged. It created community ties that explicitly linked people to each other as well as to the larger biophysical world. Fishing was part of local culture and was represented in religious practices, celebrations, work songs, art, symbols, folktales, and language.¹⁷

Cultural practices that produced use values for humans also contributed to the sustainability of fisheries. For example, in the Pacific Northwest, the tradition of the First Salmon Ceremony regulated the timing of the salmon harvest¹⁸, leaving the salmon time to reproduce and thus ensuring the vitality of the species. In this way, the diversity of qualitatively different use values prevented the quantity of fish from decreasing. Because the tragedy of the commons thesis is concerned only with quantity of a resource, it is blind to the diverse motivations behind traditional fishing that prevent the tragedy from occurring.

However, when salmon and tuna have become highly valued global commodities, the diversity of motivations for fishing and choosing the methods and practices for fishing have given way to a single purpose: catching the maximum amount of fish in order to extract the maximum amount of exchange value. This strategy happens to correspond to what Hardin presumes to be the universal human condition.

The tragedy of the commons thesis has been a common explanation for the stock declines. In other words, the decrease in stocks is explained by the inherent human tendency to obtain as many as fish as possible unless privatization or state regulation are imposed. A very widespread solution is a kind of a hybrid of both recommendations given by Hardin: government control and markets. This solution is called the system of individual transferable quotas (ITQs). The state component in ITQs is the fact that it is a quota system that is enforced by public entities, who define the total allowable catch for a designated species of fish in a certain fishery. The market element comes along when the total allowable catch is divided into individual quotas that are sold to private parties. This approach might help to reduce overfishing of the designated species, but it causes other ills. Livelihood fishing becomes even more difficult since money to pay for the quotas is now needed. More efficient – in terms of labour time needed – methods such as dragnets often increase the likelihood of bycatch of other species and harms the ocean floor, thus creating environmental damage not accounted in the ITQ system. In short, while the decrease of the species placed under the

¹⁷(Longo, 2015, 76)

¹⁸(Longo, 2015, 110)

ITQ system might be slowed down, ITQs produce new environmental and social problems.

The tragedy of the commons presumes that obtaining the maximum amount of resource units from the stock of resources is the sole strategy for everyone involved, which makes it seem reasonable to impose the same policies upon everyone involved:

One important reason for the unequal distribution of socioeconomic benefits stems from an underlying flaw with the economic assumptions inherent, for example, in the tragedy of the commons framing. This approach suggests that harvesters form a somewhat homogeneous group, the members of which will behave in a similar, rational manner to exploit unmanaged, common property resources.¹⁹

Following anthropologist Anthony Davis, Longo et al. emphasize, that

...the most crucial distinction must be made between accumulation and livelihood harvesting. Accumulation harvesting is an industry-centered approach to fishing, with large boats owned by vertically integrated enterprises, capturing mass quantities of the resource with little selectivity. Livelihood fishing, in contrast, is made up of harvesters using small-scale, frequently selective fishing technology, who usually work for themselves. Livelihood fishers are more likely to be embedded in communities with ties to family and acquaintances. Hence livelihood fishers are largely working directly and indirectly to meet subsistence needs for themselves, their families, and their communities.²⁰

As a side effect of ignoring this distinction, the ITQ system has favored the accumulation harvesters, the very ones who behave in the manner predicted by the tragedy of the commodity thesis. For example, in Iceland, one of the first countries to adopt an ITQ system, quota shares have been concentrated to the hands of accumulation harvesters.²¹ Another problem is bycatch:

In addition, while ITQs may have positive effects on target species, for example cod or surf clams, the effects on other species that inhabit the fishery and the general ecosystem effects are unclear. In fact, without strong oversight and enforcement, ITQ management could result in problems similar to those facing many other fisheries, including overexploitation of target and/or nontarget stocks. For example, bycatch of Chinook and chum salmon has been a persistent problem in the ITQ-managed Alaskan pollock fishery²²

¹⁹(Longo, 2015, 55)

²⁰(Longo, 2015, 55)

²¹(Longo, 2015, 50)

²²(Longo, 2015, 52)

The last stage of the tragedy of the commodity can be seen as a continuation of this development. While the demand for salmon and tuna has increased and the amount of naturally available fish has kept going down, aquaculture is presented as an ecological solution, the rationale being that increasing the supply of the fish by farming will decrease the demand for wild fish, thus protecting the wild species from overfishing. While this supposition remains to be validated, there are many visible problems caused by aquaculture. The farmed tuna and salmon are fed with other species of fish, which decrease marine biodiversity by replacing less commercially successful species of fish by tuna and salmon. This decrease in biodiversity is emphasized by the fact that the farmed fish come from a narrow genetic pool also within their own species. Further damage is caused when farmed fish escape, potentially infecting other fish and disturbing the wild species. Aquaculture also produces organic waste polluting ocean and is fossil fuel-intensive practice.

To summarize the comparison of the tragedy of the commodity and the tragedy of the commons, the tragedy of the commodity not only provides an alternative explanation for the overfishing, namely, commodification instead of human nature. It also adds extra dimensions to the picture. The tragedy of the commons overlooks the differences between use values and exchange values, while the tragedy of the commodity takes the diversity of values into account. The result is that the latter approach makes it possible to explain not only decline in the quantity of resource units but also the interconnected phenomenon of the decrease of biological and cultural diversity. The tragedy of the commodity adds an extra dimension also in the sense that it takes the dimension of time into account. Fishing practices have changed historically. Fisheries as commons in Hardin's sense of a free-for-all stock of resources exploited by rational actors in search for maximum gain are a recent phenomenon, brought about by commodification.

3 The Predominance of the Abstract

As indicated by the title, the aim of the present paper is to provide an ontological perspective on the tragedy of the commodity approach. The aim is to broaden the field of applications of this approach and to show how ontological thinking can contribute to better understanding of problems pertaining to overconsumption and the use of natural resources in general. The tragedy of the commodity approach gives a concrete idea of how the dominance of exchange value brought about by commodification has the tendency to homogenize the diversity of both the ecosystem and the sociocultural sphere, and how policies based on the tragedy of the commons thesis manage to deepen the commodification even further. In this sense the tragedy of commodity offers a historical and multidimensional perspective in contrast to the ahistorical and one-dimensional explanation given by the tragedy of the commons thesis. The tragedy of the commodity approach describes the concrete reality of overconsumption, while the tragedy of the commons is an ahistorical abstraction which explains overcon-

sumption as a timeless condition that emerges from the human nature. The purpose of the ontological approach is to analyse the ontological relationship between the concrete historical reality and the ahistorical abstraction. This is done by analysing the ontological role of unity in commodification. However, before adopting the ontological perspective, the role of unity in commodification must be established in a non-ontological fashion.

3.1 Unity of Commodification

According to Noel Castree, commodification is at the most abstract level “a process where qualitatively distinct things are rendered equivalent and saleable through the medium of money. Particular commodity-bodies (use values) are thus commensurated and take on the general quality of exchange value.”²³ On a more concrete level there are, however, six principal elements involved:

1. Privatization: assigning a named individual, group or institution a legal title that gives “more-or-less exclusive rights of the owner to dispose of that which is named by the title as they wish”.
2. Alienability: capacity of a given a thing to be separated from their sellers.
3. Individuation: separating a thing from it’s context representationally and physically; to act upon it as if it was an separable individual independent from it’s surroundings.
4. Abstraction: using a thing as if it was identical with other entities by ignoring their real differences.
5. Valuation: rendering an entity exchable and commensurable with other entities via medium of money.
6. Displacement: the appearing of a thing as something else than it is.

The main line of the following argument is that in the six principal elements (privatization, alienability, individuation, abstraction, valuation and displacement) of commodification there is a certain relationship between abstract attributes, social interaction and material things at play that can be conceptualised with Alfted Sohn-Rethel’s concept of real abstraction²⁴. Later, it is argued that this relationship can be expressed by using a Alain Badiou’s concept of one, or unity.

To illustrate how real abstraction figures in commodification, let’s first take an example of a situation where commodification is not at play: a situation where exchange value is absent and things are used only according to their use value. In the situation where use value reigns, the function of a material thing is defined by its real material characteristics: a hammer is used for hammering because it has certain weight, material, shape and so on that permit using it

²³(Castree, 2003)

²⁴Developed in his book *Intellectual and Manual Labor. A Critique of Epistemology*(Sohn-Rethel, 1978)

to drive nails. A thing is used the way it is used because it possesses certain attributes in itself – because of what it is. Properties of the thing determine how it is used. In real abstraction this relationship between the properties of the thing and the way it is used goes the other way around. That is, a material thing becomes part of social interaction where it is treated by participants as if the thing possessed certain attributes that are independent of its material properties. What the thing is in the social situation is different from what it is materially. In short, a thing is what it is in the social interaction because it is used the way it is used - the way thing is used determines its properties. For example, in privatization a material thing gains social status characterised by abstract attribute “owned by x”. In individuation the thing is used as if it was separate from its environment etc.

As Sohn-Rethel writes: “Commodities are exchangeable between their private owners exactly in the capacity in which they are the objects of a mutual exclusion of ownership on the part of their owners.”²⁵ In order for a thing to be exchangeable, it needs to be private property. Nothing that belongs to one party of the exchange can belong to the other and vice versa. Only what is owned by one but not the other can be exchanged between the parties. As consequence, exchange impels strict division between the private spheres of the participants. This reciprocal exclusion of ownership is called *practical solipsism* by Sohn-Rethel.

Exchange requires it to be impossible for a commodity to be owned simultaneously by two people in separate ownership, which in turn requires that commodity is treated as a unity. According to Sohn-Rethel “every commodity is one as against the rivalling claims of two owners.”²⁶ This means that although there might be infinitely many sensations about the object of the trade and the owners might not be in the agreement of any of the properties the object has, as an object of trade it has to be treated as indivisible unity. Everyone can have their own differing experience about the object, but in order for it to be exchangeable, it must be owned as one. The same thing can’t be owned as private property at the same time by different parties. Objects can be multiple in the sense that they are divisible as material entities and that there can be infinitely many different kinds of perceptions about them, but as objects of exchange they must be treated as single, indivisible unities.

As abstract unities, things exist within a single universal system of exchange. This is guaranteed by money:

Money, then, acts as the concrete material bearer of the form of exchangeability of commodities. That this form can be expressed as the oneness of the commodities’ existence explains why there attaches to money an essential functional unity: there can, at bottom, be only one money in the world. There can, of course, be different currencies, but so long as these do effective monetary service within their own orbit, they must be interchangeable at definite rates and thus communicate to become one, and only one, universal money

²⁵(Sohn-Rethel, 1978, 43)

²⁶(Sohn-Rethel, 1978, 43)

system. Thus all communicating societies of exchange effect a functional unity.²⁷

Thus in Sohn-Rethel's theory, commodities are real abstract unities that are universally exchangeable within a greater unity, the system of monetary exchange. They are abstract in the sense that the properties that make them commodities are not dependent on their physical features: a hammer is not a commodity because it can physically be used to drive nails, but because it is exchangeable. However, these abstract features are real in the sense that they don't take place in a person's imagination: it doesn't matter what people who participate in trade think. Traders don't need to believe that the commodities they exchange are really commodities; all that is needed for abstraction to take place is the act of exchange.

We can now see how the first five principal elements (privatization, alienability, individuation, abstraction, valuation and displacement) of commodification can be seen as different aspects present in exchange abstraction.

1. Privatization: exchange is not possible without privatization, that, on the level of real abstraction, impels practical solipsism.
2. Alienability: the degree of alienability of a thing might vary depending on particular characteristics of the actual situation. For example, it is easier to alienate a shoe than an internal organ. However, on the level of exchange abstraction, the object of trade must be acted upon as if its capacity to be separated from its seller was absolute.
3. Individuation: alienability requires the commodity to be treated as a unity, a thing that has a distinct and separate existence.
4. Abstraction: the exchangeability of commodity implies that it is ultimately commensurable with every other commodity. From the point of view of exchange abstraction, when all is said and done, the only properties that separate commodities from one another is their bare existence as individual commodities and their different exchange values.
5. Valuation: the exchangeability of a commodity requires that their value can be measured within a single system of value. The material representative of this system is money. Valuation via the medium of money guarantees the commodities' universal commensurability.

Considering the final sixth element of commodification mentioned by Castree, *displacement*, further considerations are needed. The claim of this study is that if considered from the point of view of real abstraction, commodification must be interpreted not only simply as a juridical phenomenon, a question of property rights, but also as a properly ontological transformation. From this point of view, exchange abstraction indicates that by becoming commodity a

²⁷(Sohn-Rethel, 1978, 44)

thing becomes is ontologically transformed, and consequently, displacement, the appearing of a thing as something other than it is, can be considered as an epiphenomenal effect of what is happening on an ontological level.

3.2 The Ontological Analysis

In the previous section an attempt was made to show that despite being an abstraction, unity nevertheless has a central function in commodification. In the present section this claim is put to an ontological perspective by using Alain Badiou's ontological ideas. The justification for choosing Badiou for this part is the apparent coincidence between Sohn-Rethel's analysis of the commodity and Badiou's ontological theorems. The theory of real abstraction implies the idea of a unity that is not part of what things are materially, in themselves, but instead a relational feature introduced by an operation. This happens to be the starting point for Badiou's ontology. According to Badiou, unity is not a feature of materiality of things. Being material is being pure multiplicity. Unity is rather a relational feature that characterizes beings only insofar as they are part of what Badiou calls a situation (or world, in his later work). These claims are explored more thoroughly later. First, the way the word *ontology* is used in the present paper must be defined.

The word *ontology* can be used to mean several slightly different things. The oldest meaning for ontology is a strand of philosophy that can be defined, for example, as the philosophical study of the fundamental structure of reality. As a philosophical discipline ontology is concerned with being in general. If ontology is defined this way as the general ontology, it makes sense to say that there can be only one correct ontology, the one that correctly describes the structure of reality. In a more modern usage, ontology is also often used in the sense of any set of assumptions about what there is. For example, a work of fiction could be thought of having an ontology of its own in the form of structure of a fictional world. This second type of ontology can be more or less conscious or unconscious. Consequently, if ontology is understood this way, it makes sense to say that many ontologies can exist side by side, since in different situations different things exist and consequently different sets of assumptions of what exist – ontologies – can correspond to different situations. As a reference to Georges Bataille's distinction between general economy and restricted economy, philosophical study of being in general is here named general ontology, while the ontology applicable to a particular situation will be called restricted ontology. In the present study a general ontology – that of Alain Badiou's – is used to analyse a restricted ontology, that of tragedy of the commodity.

More particularly, restricted ontology is defined here as an ontology of a particular world, while an ontology deserving of the name 'general' should be equally applicable to all worlds. The concept of the world as an ontological term derives here partly from Martin Heidegger, distinguishes ontological and ontic senses for the the word *world*. For Heidegger, 'ontic' refers to the features of individual beings, while 'ontological' concerns the being and its structures in general. To simplify, in ontic sense world signifies the totality of present-at-

hand²⁸ entities. In other words, world is a collection of things. The ontological sense for world in Heidegger is more complex, but one of the ontological meanings he gives to it is “the Being of such present-at-hand entities, that without which they would not be beings of that type”²⁹. Ontological understanding of a world is preoccupied not with the ontic characteristics of the entities that the world consists of, such as their particular properties (certain shape, color etc.). Instead, ontology is focused on what makes these entities what they are, their being (*Sein*) in Heideggerian terminology. However, while Heidegger analyses the concept of the world further in terms of human being³⁰, the concept of the world is here understood in a more general way as any totality of beings, while the term ontology of a world corresponds to Heidegger’s ontological sense of the world as that without which the entities that inhabit that world wouldn’t be the entities they are.

The goal here is not to defend Badiou’s ontological theory as general ontology, but as a means of describing a particular restricted ontology. To be more precise, Badiou’s ontological insights in the relationship between the one and the multiple are utilized with the help of Alfred Sohn-Rethel’s concept of real abstraction in order to analyze the ontology of a particular world, that of commodities, and to show that the tragedy of the commons presupposes an implicit ontology that is not so much a general ontology, applicable to all there is, but a restricted ontology, corresponding to the ontology of commodity.

The hypothesis is that the ontology of the commodity can be understood in terms of what Alain Badiou calls *situation* in his magnum opus *L’être et l’événement*³¹:

I term situation any presented multiplicity. Granted the effectiveness of the presentation, a situation is the place of taking-place, whatever the terms of the multiplicity in question. Every situation admits its own particular operator of the count-as-one. This is the most general definition of a structure; it is what prescribes, for a presented multiple, the regime of its count-as-one. When anything is counted as one in a situation, all this means is that it belongs to the situation in the mode particular to the effects of the situation’s structure. ³²

In order to understand Badiou’s concept of the situation, the term ‘multiplicity’ must be explained. Badiou makes a distinction between ‘consistent’ and ‘inconsistent’ multiplicity³³. The former refers to the multiple elements of any situation, that is, any structured collection of many entities. Each entity that belongs to a situation is ‘counted as one’, which means that it belongs to the situation as one of its elements. Vice versa, a situation is simply anything that is comprised of many individual elements, that is, a consistent multiplicity. What

²⁸Entities as objects of contemplative thinking

²⁹(Mulhall, 2005, 46)

³⁰*Dasein*, to be more precise(Heidegger, 1996)

³¹(Badiou, 1988)

³²(Badiou, 2005, 24)

³³(Badiou, 2005, 25)

is important here is that, in a certain sense, these elements do not exist before they are counted as one in a situation. They owe their 'oneness', identity and individuality as parts of the situation to the situation itself. Before any one thing is counted as one in a situation it doesn't exist as one. Badiou's situation resembles the Heideggerian world in the sense that it has the 'several ones' as its ontic elements and the ontological operation of count-as-one as that what makes those elements what they are. The concept of count-as-one supposes that before the count-as-one there is something that is neither one nor a collection of several ones. This 'something' that precedes all structures as their condition is what Badiou terms 'inconsistent multiplicity'. Inconsistent multiplicity is the pure, formless and raw materiality from where individuals are drawn.

Badiou's claim that all worlds (or situations), as far as they are ontologically thinkable, share this same structure, doesn't concern us here. In other words, as stated earlier, the task of this paper is not to make claims about general ontology, the ontology of all worlds. The sole interest here is the restricted ontology of commodity. What kind of world do commodities inhabit? According to Alain Badiou, material things, pure multiplicities, can be thought as unities only as part of particular worlds, in Badiou's terminology, if they are counted-as-one in a situation. For Badiou the operation of count-as-one is the universal ontological prerequisite for any thing to be thinkable as unity. Therefore, Badiou does not suppose that there occurs a concrete operation in a certain time and place. The operation of count-as-one doesn't take place in a situation: it *is* the taking place of a situation. However, nothing in Badiou's theory seems to prohibit the possibility for a certain situation could be the place for another situation to take place. In other words, Sohn-Rethel's theory of real abstraction could be thought as a description of how a world is born out of another.

To put this in more concrete terms, prior to the act of exchange, the parties of exchange exist in a world that is not yet the world of commodity – when they engage in exchange they must act *as if* their actions took place in a world that has certain ontological characteristics that make it possible for only certain kinds of things to exist as a part of that world. For example, as part of exchange, any value can exist only as exchange value. Any use value things have *as* use value is of concern only insofar as it can be represented as exchange value. Actually, the exchange value is the only quality things can possess as objects of exchange. In the world of exchange, commodities exist *as* exchange values. To recall Badiou's definition of the operator of the count-as-one: "This is the most general definition of a structure; it is what prescribes, for a presented multiple, the regime of its count-as-one. When anything is counted as one in a situation, all this means is that it belongs to the situation in the mode particular to the effects of the situation's structure." What else would be "the mode particular to the effects of the situation's structure" in the case of exchange if not the exchange value? When a thing is assigned an exchange value, it becomes a commodity. Thus it is proposed here that the exchange value operates as the operator of the count in the situation that is the world of commodity.

From this point of view, commodification is an ontological process. Commodities are not only given their value by commodification. They *become* commodities

through commodification. Commodification makes them what they are as commodities, it grants them their existence in a mode particular to certain world, the world of commodities. As inhabitants of this world they have the peculiar properties analysed by Alfred Sohn-Rethel. The interesting thing is that these properties correspond in many ways to what Badiou takes to be the structure of all situations. First of all, for Badiou, the unity of a thing is the ontological effect of it being counted-as-one in a situation; for Sohn-Rethel, the unity of the commodity is the effect of exchange abstraction. Secondly, while for Badiou, not only the elements of the situation have a certain unity, but also the situation has a unity in the form of the regime of its count-as-one, for Sohn-Rethel “all communicating societies of exchange effect a functional unity”. As exchange values, all commodities are part of the same world. What, for Badiou, is the hidden ontology of all things, is for Sohn-Rethel the particular mode of existence of the commodity.

Commodities have not always been commodities. Ontologically speaking, what are they before they become commodities? To apply Badiouan distinctions: from the point of view of the operation of count-as-one they are pure inconsistent multiplicity. This might seem strange or even implausible: isn't it obvious that before becoming commodities, fish are not inconsistent multiplicity? They are fish. It must be remembered that it is the question about what they are for the world structured by exchange value as its operator of the count. For sure, fish are fish in their own world. But the question is, what are they as commodities, before they become commodities? Badiou's term is inconsistent multiplicity. Inconsistent multiplicity is not multiplicity as “several ones”, but simply the precondition for something to be counted as one, in other words, for something to be a consistent multiplicity consisting of several ones. Nothing can be counted as one, if there is nothing to count as one. However, as a multiplicity of several ones this “something” is exactly *nothing*. As strange this might sound, this amounts almost to the same as saying that before commodities are commodities, they are not commodities, in other words, they are nothing as commodities.

However, before becoming commodity, that which is not yet anything as commodity is something as something else. For example, in the case of fisheries the fish were use values before they became exchange values. As Marx writes in the opening pages of *The Capital*,

A thing can be a use value, without having value. This is the case whenever its utility to man is not due to labour. Such are air, virgin soil, natural meadows, etc. A thing can be useful, and the product of human labour, without being a commodity. Whoever directly satisfies his wants with the produce of his own labour, creates, indeed, use values, but not commodities. In order to produce the latter, he must not only produce use values, but use values for others, social use values. (And not only for others, without more. The mediaeval peasant produced quit-rent-corn for his feudal lord and tithe-corn for his parson. But neither the quit-rent-corn nor the tithe-corn became commodities by reason of the fact that they

had been produced for others. To become a commodity a product must be transferred to another, whom it will serve as a use value, by means of an exchange.)³⁴

Marx indicates that a thing can't become an exchange value before being a use value. In ontological terms, this implicates that the world of commodity is dependent on other worlds. The reason why the expression "other worlds" is used here in plural is the uncertainty as to whether there is one world of use value, or several. There is only one world of commodities due to the unifying function of exchange value, but there is no similar function in use values that we would know of. For that reason, it is perhaps better to say that the world of exchange value is dependent on worlds of use values. It's beyond the scope of the present undertaking to make claims about the intrinsic ontologies of worlds of use values. Therefore, we must consign ourselves to the question of the ontology of use values from the point of view of the world of commodity.

It seems that the relationship of use values and exchange values corresponds to that of inconsistent and consistent multiplicity. Although from the point of view of consistent multiplicity, inconsistency is equal to nothingness, it is obvious that use values are not nothing. However, what the Badiouan approach makes uniquely visible is that even though pure inconsistent multiplicity is nothing until the count-as-one has taken place, it keeps exerting its influence as nothing, as what Badiou calls the *void*.

To clarify what Badiou means by the void the distinction between belonging and inclusion must be taken into account³⁵. Elements of the situation are elements of that situation by virtue of *belonging* to that situation, by being counted as one by that situation. However, in addition to elements, every situation also has *parts*. Parts are any collection of elements of the situation. For example, the situation that has elements x , y and z has also the parts $\{x, y\}$, $\{y, z\}$ and $\{x, z\}$. Every element is also a part, and therefore the situation has also the parts $\{x\}$, $\{y\}$ and $\{z\}$, as well as the part that has all the elements of the situation as its parts: $\{x, y, z\}$. In addition to these, the situation has also the part that has no members, the empty set, or the void: $\{\}$. Every multiplicity has a void that doesn't belong to the situation, but is included in it. Parts of the initial situation are at same time elements of what Badiou calls the metastructure of the situation. Metastructure is therefore another situation that counts as one the parts of the initial situation. All parts, including the void, of the initial situation, are at the same time elements of the metastructure.

If the world of exchange values must presuppose worlds of use values, the world of exchange values can perhaps be thought as the metastructure of another situation. If this is the case, commodities can be retroactively thought as parts of another situation, that is, collections of elements of another situation. This means that while commodities are unities as exchange values, they are also multiplicities that consist of unities belonging to the initial situation. Let's say a particular use value, for example, fish, are counted as commodities. They

³⁴(Marx, 1887, 30)

³⁵This distinction is drawn the set theory that works as Badiou's theoretical instrument

thus become elements of the world of exchange value. In fact, the fish represent many use values. They are not only sources of nutrition but also, for example, pretexts for social gatherings. Also, there are many species of fish that might have completely different use values. A multiplicity of use values can thus be represented as a single unity of exchange values. Because every element of the initial situation is also a part of the situation and therefore an element of the metastructure, in theory, all use values, no matter how many there are, and no matter how incommensurable they are as use values, can be represented within the world of exchange values as exchange values.

However, before a use value is commodified in practice, it isn't represented as an exchange value. The implication is that a commodity is revealed as a multiplicity of several values only after those values are commodified. Before the use values contained in a commodity are commodified, they are not elements of the world of exchange values. They are nothing in the world of use values and therefore they are represented only by the void.

Nevertheless, in theory at least, exchange value has thus a boundless capacity of commensurating use values, no matter how incommensurable they are as such. This is because the commensurability that exchange value grants commodities has nothing to do with their properties as use values. As Marx says, exchange values contain "no atom of use value":

...The exchange values of commodities must be capable of being expressed in terms of something common to them all, of which thing they represent a greater or less quantity. This common "something" cannot be either a geometrical, a chemical, or any other natural property of commodities. Such properties claim our attention only in so far as they affect the utility of those commodities, make them use values. But the exchange of commodities is evidently an act characterised by a total abstraction from use value. Then one use value is just as good as another, provided only it be present in sufficient quantity... As use values, commodities are, above all, of different qualities, but as exchange values they are merely different quantities, and consequently do not contain an atom of use value.

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In ontological terms, the only common "something" in every commodity is the void that is included in every multiplicity. The void is what is excluded from every situation, but is nevertheless included in it. Because void is the multiple with no elements, in the world of exchange values it is the exchange value to which no other exchange values belong. In other words, it is something that is an exchange value, but doesn't consist of exchange values. However, according to Marx,

If then we leave out of consideration the use value of commodities, they have only one common property left, that of being products of

³⁶(Marx, 1887, 28)

labour. But even the product of labour itself has undergone a change in our hands. If we make abstraction from its use value, we make abstraction at the same time from the material elements and shapes that make the product a use value; we see in it no longer a table, a house, yarn, or any other useful thing. Its existence as a material thing is put out of sight. Neither can it any longer be regarded as the product of the labour of the joiner, the mason, the spinner, or of any other definite kind of productive labour. Along with the useful qualities of the products themselves, we put out of sight both the useful character of the various kinds of labour embodied in them, and the concrete forms of that labour; there is nothing left but what is common to them all; all are reduced to one and the same sort of labour, human labour in the abstract.³⁷

On the ontological level, human labour and the void thus seem to overlap. Why is that? It is because, as Slavoj Žižek points out, labour is a paradoxical type of commodity:

When, in pre-capitalist society, the production of commodities has not yet attained universal character - that is, when it is still so-called 'natural production' which predominates - the proprietors of the means of production are still themselves producers (as a rule, at least): it is artisan production; the proprietors themselves work and sell their products on the market. At this stage of development there is no exploitation (in principle, at least - that is, if we do not consider the exploitation of apprentices, and so on); the exchange on the market is equivalent, every commodity is paid its full value. But as soon as production for the market prevails in the economic edifice of a given society, this generalization is necessarily accompanied by the appearance of a new, paradoxical type of commodity: the labour force, the workers who are not themselves proprietors of the means of production and who are consequently obliged to sell on the market their own labour instead of the products of their labour. With this new commodity, the equivalent exchange becomes its own negation - the very form of exploitation, of appropriation of the surplus-value. The crucial point not to be missed here is that this negation is strictly internal to equivalent exchange, not its simple violation: the labour force is not 'exploited' in the sense that its full value is not remunerated; in principle at least, the exchange between labour and capital is wholly equivalent and equitable. The catch is that the labour force is a peculiar commodity, the use of which -labour itself - produces a certain surplus-value, and it is this surplus over the value of the labour force itself which is appropriated by the capitalist.³⁸

From the point of view of exchange values, there is nothing that is not paid

³⁷(Marx, 1887, 28)

³⁸(Žižek, 1989, 17)

its fair value. From point of view of ontology of commodity, this is a truism: everything consists of exchange values. However, if this was true, and the price of everything was already accounted for, why does the economy grow? There must be a source of new value. Something must enter the world of exchange value without being paid for. According to Marx, this source is human labour. What gives the labour force this special role is its capacity to act as a source of surplus value. It is the only source from which new exchange value can be created from exactly because it is not paid its full price, because it contains an element that comes from outside of the world of exchange values, an element that is included in the world of exchange values without belonging in it.

To summarize this brief exercise on the ontology of commodity, from the point of view of world of exchange values, there is a certain relation between use values and exchange values. From the point of view of the operation of the count-as-one this relation corresponds to the difference between inconsistent multiplicity and consistent multiplicity. This means also that use value is represented as the void in the world of exchange values. However, after the use values that an exchange value consists of have been commodified, this exchange value is represented as collection of multiplicity of exchange values. Thus, it seems retroactively to have consisted of multiple use values. Finally, in order for the world of exchange values to expand, new value must come from somewhere. From the point of view world of exchange values, this source of value is the void.

4 Commons Revisited

Now it is finally time to return to Hardin's pasture and look at it from an ontological perspective. At this point a new meaning for the commons is suggested³⁹. While for Hardin *commons* signify a resource system that is open for completely unfettered exploitation, it must be emphasized that this is only what the commons look like from the point of view of the world of exchange value. However, from here on the term 'commons' is used in the sense of uncommodified worlds of use values. The present section argues that the difference of resource units and resource system (Hardin's cows and pasture) corresponds to the difference between exchange values and use values, and the difference between the one and the multiple. The main thesis in the argument that is to follow is that it is precisely the existence of this difference that enables the accumulation of exchange value. As a consequence, when a resource system is commodified, the boundary between commodities and the commons is shifted. However, from an ontological point of view, this boundary always exists and thus further commodification doesn't solve the tragedy of the commons, but rather displaces it.

Hardin represents the world as a place where the utility value of resource units is given. His model presumes that there is a commensurable utility, units

³⁹This meaning is different from a one proposed by Massimo De Angelis in his book *Omnia Sunt Communia*. However, De Angelis' book has been a major influence on this paper and must be mentioned (De Angelis, 2017)

of which can be withdrawn from an open-access stock of resources, and everyone seeks to maximize their share of those resource units. The epistemological question would be whether or not this is a correct representation of the world. From an ontological point of view the question is rather: what kind of world is Hardin describing? In other words, the question is about locating and defining that world.

If Badiou's ontology is taken as a clue, this comes down to a question of identifying the operator of the count. In other words, what counts the units of utility as one in Hardin's world? Castree's analysis of commodification and Sohn-Rethel's theory of real abstraction has helped to identify oneness as being the core characteristic of commodification. Sohn-Rethel has also shown that the commodity mediates human relationship with social and material reality by introducing the effect of real abstraction, which requires that people exchanging commodities act as if they were part of a world where abstract unity is the defining feature of things. This abstract unity is based on the exchange value of things. In Badiou's terms, for the parties of exchange the world is one where the operator of the count is exchange value. It is important to stress that this "for them" doesn't refer to a purely epistemological relationship. It is not a matter of their beliefs or interpretation of the world. It is an ontological relationship in the sense that in the act of exchange one immediately participates in the world of commodities. They can believe whatever they want. As far as they are part of commodity exchange, they are part of that world in practice.

Stefano Longo and his associates have studied empirical cases in which concrete humans act in the way Hardin predicted, and located commodification as the identifying feature of these cases. Consequently, there is a world where people are Hardin's herders and nature the pasture depicted by him: it is the world where the relationship of capitalists and commons is mediated by commodities. It isn't Hardin's incorporeal notion of utility that governs this world by giving it its consistency. The lord of this world is the commodity, in terms of which the social relations between people are incarnated as exchange value.

What ontological consequences can now be drawn when considering the problem of overconsumption and the solutions Hardin recommends? The appropriators have the choice of obtaining resource units from a resource system. In Badiou's terminology resource units are counted-as-one in a situation that has the exchange value as the operator of the count. One could also say that commodification makes them "counted-as-resource-units". It must be emphasized that the resource units are not only given their value by commodification. They become resource *units* for the appropriators by commodification. Also the appropriators are transformed. Because they seek the maximum flow of resource units that are defined by their exchange value, they are not what Anthony Davis calls livelihood harvesters, but accumulation harvesters. The exact monetary value or currency is not of import, so we can stipulate that exchange value for a resource unit is exactly 1. Every appropriation of a resource unit reduces the available flow of resource units by one and increases the exchange value obtained by 1. This reduction is shared by everyone, while the

increase of exchange value received is enjoyed fully by the one who appropriates the resource. As each seeks to maximize their exchange value, the tragedy is inevitable.

The distinction between resource system and the resource units corresponds to the distinction between use values before and after commodification. Resource units are commodified use values, withdrawn from a non-commodified source. What the accumulation appropriators attempt to do is to withdraw resource units from the resource system. In other words, they transform commons into commodities. They internalize the exchange value while externalizing its costs. The attractiveness of this practice for accumulation harvesters stems precisely from the fact that the resource system is not yet commodified. Because it is not yet commodified it can act as a source of new value. If it was commodified, it would already be someone's private property and thus it couldn't be appropriated without paying its full value. In the language of the ontology of the commodity, the resource system, the commons, is the void from which new exchange value is drawn in the form of resource units.

Let us now take a look at the second phase of the tragedy of the commodity described by Longo and his associates, namely, the phase in which privatization is introduced as a means of preventing the tragedy of the commons. In the context of fisheries this was the system of ITQs. Further commodification is now introduced to the situation where the fish were already counted-as-one (as commodified resource units). This amounts to an attempt to commodify the resource system itself. The allocation of fishing rights is the marine equivalent of building fences on a pasture. This way the resource system itself is transformed into an object that can be bought and sold. The reasoning behind the privatization of resources stems from the idea that in this way it is possible to privatize the costs of the appropriation. Because the profits are private, the costs must be private as well. If the resource system is commodified, the unpaid externalities transform to paid internalities. Thus, in theory, the privatization of the resource system would put an end to the tragedy because the cost of withdrawal of resource units is now accounted for.

However, the result is not the end of tragedy, but its displacement. According to Longo, Clausen and Clark, while ITQs might be successful at curtailing the decline of a target species, they cause new social and ecological problems. From an ontological point of view this is not a surprise. If the worlds of use values are the condition for the world of exchange values, there will always be the boundary between the commodities and the commons, and therefore privatization doesn't eliminate the boundary but merely shifts its place. If Badiou's ontology can be trusted as an ontology of the commodity, the void, the unpaid source of exchange value, will always be included in the world of exchange. When a resource system is commodified, a new boundary between the commons and the commodities is installed. This opens up new horizons for accumulation harvesters to find new sources of unpaid exchange value, a new commons. Where the ITQ system has been introduced, the profits are sought from other sources, such as reduced labour costs and deploying fishing technologies that cause harm to other species. The costs are paid outside the world of exchange value in the form of degradation

of ecosystems and social problems.

The ITQ system sees the fishery as an isolated, homogenous totality, one that is separate from the greater contexts of ecosystem and culture and consists of homogenous resource units that rational actors pursue in the manner predicted by the tragedy of the commons thesis. In other words, the ontological presuppositions behind the ITQ system coincide with the ontology of the commodity. While reality is more diverse than this picture, the concentration of fishing rights into the hands of accumulation harvesters and increased bycatch reduce this diversity, thus rendering reality closer to the world depicted in the tragedy of the commons thesis.

The last stage of the tragedy of the commodity – the one of artificial production – can also be interpreted in terms of shifting the boundary between the commodities and the commons. On the most initial level commodification consists of acting *as if* the physical reality possessed certain abstract attributes. However, it seems that when commodification advances, even the physical features of things start to align with these attributes. While for the exchange abstraction the world consists of chunks of homogeneous matter, aquaculture produces homogeneity also on the physical level. This is exemplified in the fact that in aquaculture, different species of naturally available fish that have a low exchange value are used as feed for the few species of commercially attractive fish. Aquaculture also helps to eliminate the temporal diversity in the catches of fish that is caused by the life cycles of the marine life and the changes of the seasons. Natural biodiversity is therefore replaced with a steady flow of homogeneous resource units. In addition, aquaculture is a fossil fuel intensive practice. Therefore aquaculture expands the boundary of the world of commodities to such commons such as commercially unattractive species of fish and the climate.

5 Conclusion

This paper set out to examine the relationship between commodification and the commons by interpreting tragedy of the commodity in ontological terms. By analysing the work of Longo et al., it was pointed out that exchange value is the key to understanding how the tragedy of the commodity plays out. By combining Sohn-Rethel's theory with Badiou's ontological analysis of the relationship between one and the multiple, it was argued that a commodity can be understood as a part of a situation structured by an operation of count-as-one in terms of exchange value. According to Badiou, reality as such consists ultimately of inconsistent multiplicity; matter without form or structure. Nothing exists as a determined individual. Instead, the possibility to identify individual things rests on their belonging to particular situations that define them. A chess piece has an identity as a chess piece only in relation to the situation, that is, to the game of chess. The situation of which an individual is a member makes it the individual that it is. Every situation has an "operator of the count" that defines what makes an individual a member of that situation. For a situation inhabited by commodities, this operator is the exchange value. However, in

addition to its members, every situation also has a part that does not belong to the situation by being recognised by the operator, but is nevertheless included in it: the void. There is thus a rift between belonging and inclusion, the difference between determinable identity and pure being. It was argued that in the context of commodification this difference is the difference between abstract exchange value and concrete use value.

The principal theoretical implication of this study is that in every world of commodities determined by exchange value, there will always be something that remains yet to be commodified and accounted for by exchange value. Because commodification can never close the gap between exchange value and use value, some use values will always remain unaccounted “externalities” from the point of view of exchange. This study supports the argument for the tragedy of the commodity approach by providing a more theoretical justification. Although the ontological approach used in this paper can be objected to as being highly speculative, at the same time, it has the advantage of being applicable to wider range of situations than the original study, which makes the tragedy of the commodity approach even more generally important.

Researchers such as Ostrom have taught us to be wary of solutions to the problems of the commons based on overtly theoretical assumptions about human nature by pointing out their discrepancy with empirical reality. The contribution of this study was to take a step towards a theory that is informed by the empirical evidence against outdated models such as Hardin’s. In addition, by utilising the approaches of Sohn-Rethel and Badiou to examine the problems concerning overconsumption, this research has opened up a new field of application for these philosophies. Most importantly, this study hopes to have succeeded in persuading at least some readers that an ontological approach is capable of providing new perspectives on the interconnection of social factors, natural resources and theoretical models.

It was argued that there is a coincidence between Badiou’s ontological theses and the phenomenon of real abstraction that is at work in commodification. Why this coincidence? While the ambitions of this conference paper are perfectly satisfied by pointing out this coincidence and entertaining its possible implications in the context of the problem of overconsumption, it won’t do harm to point in the direction of a possible line of further inquiry. One might recall that the epigraph of this paper was a quotation from Alberto Toscano: “While the essence of capitalism is not metaphysical, the essence of metaphysics is capitalist”. Now it can be quoted again in context:

In Sohn-Rethel’s critique of epistemology – which posits the origin of philosophical thought and modern subjectivity in the non-mental practice of commodity exchange and the mediations of the money form – it is the extra-mental logic of commodity exchange which underlies ‘Western thought’, and, to put it in hyperbolic, but I think pertinent terms, while the essence of capitalism is not metaphysical, the essence of metaphysics is capitalist. Whereas earlier iterations of materialism countered metaphysics, and its attendant ideologies, by

revealing it to be a spectre of matter, or of practice, a materialism of social forms that takes its cue from this notion of real abstraction tries to take seriously the thesis that our social life does not merely appear to be but actually is ‘metaphysical’. Against any Eurocentric pieties about the singularity of philosophy’s Greek origin, this requires that we begin with a radically profane expatriation: it is the contingent emergence of entirely mundane forms of social abstraction, pivoting around monetary exchange, which permitted the kind of idealities characteristic of ancient Greek philosophy to emerge, not any mysterious spiritual features of that civilisation. Money is abstraction made tangible and visible, the representative, equivalent and medium of a fundamentally impersonal exchange, a relationship without qualities. Ideal abstraction (philosophy) is derivative, but also in a way identical to, the real abstraction of exchange.⁴⁰

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