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The state of no nature – Thomas Hobbes and the natural world

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Abstract: Thomas Hobbes was one of the first modern political philosophers, and his approach to politics is still influential. Hobbes's philosophy is humanistic, and I examine how the natural world is treated in Hobbes's *Leviathan* (1946). While Hobbes may seem to be the antithesis to animal rights and environmentalism, I argue that this view is unfounded. Hobbes describes man and animal as fundamentally equal, and this equality is more important than Hobbes makes it. If we acknowledge the natural rights of animals, we could imagine a social contract in which animals are parties to the contract, represented by curators or guardians. This approach has some limitations, and I argue that exploring "environmentalism as self-interest" is more promising. I show how Hobbes prepares the argument for long-term perspectives, introduce some elementary evidence of the dangers of environmentally unsound policies, and then develop a Hobbesian argument for environmentalism.

Keywords: *Thomas Hobbes, social contract, animal rights, environmentalism, deep ecology.*

1 INTRODUCTION

> [T]he world is small and fragile, and humanity is huge, dangerous and powerful (Randers 2012).

Thomas Hobbes (1588-1679) is famous for his systematic and highly rationalistic social contract theory. In *Leviathan* (1946), he argues that the legitimacy of the state stems from the overlap of everyone's self-interest, as arrived upon when instituting Hobbes's *sovereign* – the procurator of peace (and little else). Much has been written about Hobbes's recommendation of an absolutist state, but I will focus on another striking aspect of Hobbes's theory: the apparent absence of the *natural world*. In an age of environmental concerns, it is interesting to examine the possibility of developing a Hobbesian environmentalist theory[1] and to analyse his stance on animals and their standing in relation to man and society.

When considering the classical social contract theorists (Hobbes, Locke and Rousseau), Hobbes may appear to be the least promising candidate to provide what we search for, but he is also a very interesting candidate. His complete dedication to rationality, his clear humanism and his extensive use of terms connected to *nature* (state of *nature*, rights of *nature* and laws of *nature*), when hardly mentioning nature *proper*, are aspects that imply that he's not the theorist of the environmentalists.

One promising aspect of Hobbes's theory is the fact that he portrays *man as an animal* – as an integrated part of the natural world. This could lead to some interesting openings for discussing *animal rights*.

The approach most likely to bear fruits when searching for an environmentalist Hobbesian theory, is one based on *environmentalism as self-interest*. If we are able to make a Hobbesian defence for environmentally sound policy, it could turn out to be quite important, as it would be a *minimalist* and *robust* justification. Further: it would be a highly rationalistic defence of environmentalism, which could affect many of the fundamental theories of social science and economics.

"Hobbes's philosophy" will in this paper be understood as the presentation he proposes in *Leviathan* (1946). I will employ Arne Næss's terms *shallow* and *deep* ecology, and examine where Hobbes's theory stands in relation to these terms. Shallow ecology is the search for short-term solutions to imminent crises created by human (and natural) activity; it is not a theory concerned with the natural as *inherently valuable*, but mainly as *useful* for men (Næss 1989). I believe it would not be hard to make a Hobbesian defence for this kind of "problem-solving ecology". Any connections between Hobbesian philosophy and *deep ecology*, however, would be more surprising. Arne Næss describes the eight main tenets of *deep ecology* in the following way:

[1] I use the term to describe a theory based on Hobbes's framework, but which considers environmental and ecological issues. Such a theory would acknowledge the need for an understanding of "the relationship between organisms and their environment" (Smith and Smith 2006:3).

1. The flourishing of human and non-human life on Earth has intrinsic value. The value of non-human life forms is independent of the usefulness these may have for narrow human purposes.
2. Richness and diversity of life forms are values in themselves and contribute to the flourishing of human and non-human life on Earth.
3. Humans have no right to reduce this richness and diversity except to satisfy vital needs.
4. Present human interference with the non-human world is excessive, and the situation is rapidly worsening.
5. The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of non-human life requires such a decrease.
6. Significant change of life conditions for the better requires change in policies. These affect basic economic, technological, and ideological structures.
7. The ideological change is mainly that of appreciating *life quality* (dwelling in situations with intrinsic value) rather than adhering to a high standard of living. There will be a profound awareness of the difference between big and great.
8. Those who subscribe to the foregoing points have an obligation directly or indirectly to participate in the attempt to implement the necessary changes (Næss 1989:29).

2 HOBBES AND LIVING NATURE

Art goes yet further, imitating that rational and most excellent work of nature, *man* (Hobbes 1946:5).

Hobbes wastes no time, and starts his book by declaring man the "rational and most excellent work of nature". It is, however, possible that other beings (and the rest of nature) are valuable, despite man being the most excellent. *Life*, to Hobbes, is "but a motion of limbs, the beginning whereof is in some principal part within" (Hobbes 1946:5). Mechanical devices, capable of autonomous movement, could be said to possess *life*, and animals must surely be included amongst the living (Hobbes 1946:5). Hobbes's commonwealth is portrayed as an *artificial man* – and the purpose of *Leviathan* is to describe the nature of this "man" (Hobbes 1946:5). Hobbes's purpose does not to fit our interests entirely, but in order to describe a healthy man (as Hobbes searches for a healthy commonwealth), we would argue that a reasonable relation to the natural world is a necessity. Hobbes's explicit purpose also serves as a delimiter for his work, which makes it necessary for us to examine the parts he leaves out.

2.1 Man and animal

There are three ways of dealing with animals in a theory of a social contract, from which we will focus on the first two: a) animals could be deemed *like enough* humans that we include them in some way in the contract, b) men are *special*, and alone capable of making contracts, but animals could be given rights in the contract agreed upon, or c) animals are not *part* of the contract, and not considered *in* the contract.

Hobbes starts by describing *sense* in a way that implies that man and animal are similar beings. *Sense* is an "external body, or object, which presseth the organ proper to each sense"; the result is a sense-impression, which he calls "original fancy" (Hobbes 1946:7). *Imagination* ("decaying sense") is also present in "men, and many other living things" (Hobbes 1946:9).

A natural, and important, question in this part of the paper thus becomes: what separates man and animal? An advantage for Hobbes, should he wish to include the natural world in his theory, is his *mechanism*, which makes man fundamentally no different from the other atoms spread around the universe (Hobbes 1946:5). Hobbes has to describe what makes man *special*, if animals are to be given less consideration than men. I will focus on *Hobbes's* philosophy about the nature of animals, and will not consider modern research on animals.

Animals most likely share our ability to retain memories, to dream and to *understand*, which to Hobbes means recollecting memories by way of words or other voluntary signs (Hobbes 1946:10-13)[2]. "Mental discourse" – one thought leading to another – is also an ability of animals, and thus far it seems easy to agree with Hobbes that man and animal are, in some sense, alike (Hobbes 1946:13). Hobbes then describes a point of divergence: *regulated thought*, where we have one thought, and try to imagine all the possible consequences that follow it:

> Of which I have not at any time seen any sign, but in man only; for this is a curiosity hardly incident to the nature of any living creature that has no other passions but sensual, such as are hunger, thirst, lust, and anger (Hobbes 1946:15).
>
> *Desire* to know why, and how, CURIOSITY; such as is in no living creature but *man*; so that man is distinguished, not only by his reason, but also by this singular passion from other *animals* (Hobbes 1946:35).

What, then, of *prudence* (*foresight* derived from the ability to understand what will come to pass based on previous experience)?

> [I]t is not prudence that distinguisheth man from beast. There be beasts, that at a year old observe more, and pursue that which is for their good, more prudently, than a child can do at ten (Hobbes 1946:16).

Man, then, shares with animals a *sensuous nature*. The *main* difference between us, says Hobbes, is our invention of *words and speech*; there is little *inherently* different between man and animal, that does not follow from our use of *language*; man is, like all other living things, limited to experience gathered from our *senses*: "a man can have no thought, representing any thing, not subject to sense" (Hobbes 1946:17).

2.2 Speech and method

> But the most noble and profitable invention of all other, was that of SPEECH, consisting of *names* or *appellations*, and their connexion; whereby men register their thoughts; recall them when they are past: and also declare them one to another for mutual utility and conversation (Hobbes 1946:18).

So, we have found that language makes man special. Language enables men to create the special agreement we call the *social* contract. However, language is more than a contract-enabler. The concepts of *true* and *false* come with the use of words – correctly or falsely. Thus animals are not concerned with truth or falsehood. A blessing, some would say, and Hobbes would perhaps envy them their inability to arrive at *absurdities*, which he so despises (Hobbes 1946:21). The privilege of language is unfortunately accompanied with the "privilege of absurdity; to which no living creature is subject, but man only" (Hobbes 1946:27). Nature cannot be absurd, according to Hobbes, and it cannot err; natural ignorance is not the worst there is: "[f]or between true science and erroneous doctrines, ignorance is in the middle" (Hobbes 1946:22).

Reason is often described as man's signature feature; Hobbes agrees that animals don't have reason, because he makes it dependent on *words* (Hobbes 1946:25). Reasoning, to Hobbes, is "nothing but *reckoning*, that is adding and subtracting, of the consequences of general names agreed upon for the *marking* and *signifying* of our thoughts …" (Hobbes 1946:25-6). How this differs from understanding (knowing the consequences that follows certain events) is somewhat unclear, but it seems likely that Hobbes reserved *reason* for the evaluation of rather long sets of words available for interpersonal evaluation.

Hobbes later writes: "when a man reckons without the use of words, which may be done in particular things, as when upon the sight of any one thing, we conjecture what was likely to have proceeded, or is likely to follow upon it …" (Hobbes 1946:27). Considering his statement that reasoning is but reckoning, we deduce that animals *could* also have some limited reason, despite his previous assertion to the contrary. Hobbes strongly emphasises that reason is highly fallible, and that no amount of reasoning leads to *certainty* (Hobbes 1946:26). While the exclusion of animals from *reason* seems somewhat uncertain, Hobbes certainly reaches the point of difference when describing *science*. Science is an advanced form of reason, consisting of the systemisation of our knowledge of various subjects (Hobbes 1946:29).

[2] Worthy of note is that Hobbes in chapter *IV again* defines understanding, and here excludes animals from having the ability, as he now claims that it is "nothing else but conception caused by speech" (Hobbes 1946:24). I use Hobbes's first definition, which allows us to assume that animals can in fact *understand* certain signs, and even words.

Following his discussion of reason, Hobbes continues to describe abilities we share with animals. *Deliberation* is the process of choosing between various appetites, that cannot all be satisfied at the same time; "[t]his alternate succession of appetites, aversions, hopes and fears, is no less in other living creatures than in man: and therefore beasts also deliberate" (Hobbes 1946:37). *Will* is the end of our deliberations, and Hobbes states that animals also have will (Hobbes 1946:38). Every voluntary act is that which follows from the will, so animals have some reason, they are deliberative beings with a will, and have the ability to act voluntarily (Hobbes 1946:38). To Hobbes, peace of mind is unobtainable while alive, as life is but motion; *felicity* – the "*[c]ontinual success* in obtaining those things which a man from time to time desireth" – is the best we can hope to achieve (Hobbes 1946:39). Animals acquiring the things they desire must also be supposed to experience felicity.

Hobbes believes that all *virtue* consists in comparison (Hobbes 1946:42). When discussing mental virtues, Hobbes separates *natural* and *acquired* wit. While we could argue that animals gain some wit from experience – "natural wit" – Hobbes connects *acquired wit* with instruction and the use of speech (Hobbes 1946:43,46). *Prudence* is a matter of having much experience of consequences, and as a part of *natural wit*, animals (since they have memories and experience) also have some prudence (Hobbes 1946:16,45).

2.3 The good, the bad and the fools

An important point is brought up when Hobbes discusses the many people wholly unfamiliar with *science*, getting by with a more primitive reason (Hobbes 1946:29). Hobbes compares them to children, but also says that these people are better off with their "natural prudence" than men brought into absurdities by the wrong use of words and science (Hobbes 1946:22,29). What separates *these* men from animals that also follow their natural prudence? What separates men overcome by sensual desires from animals distracted from "reason" by the same?

When it comes to *good* and *bad*, there is little difference between living things: the things we want – which we have an *appetite* for – are *good*, and what we don't want – have *aversions* for – are *bad*; entirely subjective, variable over time as our bodies undergo various changes, and fully independent of science and reason (Hobbes 1946:31-2). Hobbes proceeds to detail the sources of good and bad:

> For these words of good, evil, and contemptible, are ever used with relation to the person that useth them: there being nothing simply and absolutely so; nor any common rule of good and evil, to be taken from the nature of the objects themselves; but from the person of the man, where there is no commonwealth; or, in a commonwealth, from the person that representeth it; or from an arbitrator or judge, whom men disagreeing shall by consent set up, and make his sentence the rule thereof (Hobbes 1946:32-3).

This paragraph is crucial in our search for a Hobbesian connection to deep ecology. If men's appetites and aversions are the *only* things deciding what is good and bad – and this turns out to be the basis of commonwealths' policies – how are we to reconcile this with Næss's points given in the introduction? Especially problematic is the first point, saying that all life, in and of itself, has inherent value. While the good of an individual is subjective, the search for the good for *society* is what Hobbes calls moral philosophy:

> And the science of them [the natural laws], is the true and only moral philosophy. For moral philosophy is nothing else but the science of what is *good*, and *evil*, in the conversation, and society of mankind (Hobbes 1946:104).

Central to our comparison of man and animal is the fact that Hobbes often points out the mental limitations of most men (despite *some* men having great abilities):

> I can imagine no reason, but that which is common to all men. Namely, the want of curiosity to search natural causes: and their placing felicity in the acquisition of the gross pleasures of the senses, and the things that most immediately conduce thereto (Hobbes 1946:49-50).

That very curiosity was one of the things Hobbes said separated man and beast! Hobbes might be thinking about the lack of searching for *natural* causes, though, and implying that the curiosity of some men is satisfied by finding supernatural explanations for the phenomenon they encounter. Still, felicity is clearly attainable through satisfaction of the "gross pleasures of the senses", and while we assume that this is the path most animals take to felicity, it seems to be that of some men as well.

2.4 The value and position of animals in society

Having seen what separates animals from men, it is time to evaluate how one is to value animals according to Hobbes's theory. Hobbes describes animals as having *natural power* (strength, prudence etc. that enables a being to acquire that which it deems good), but the question of *worth* leaves us with a conundrum (Hobbes 1946:56):

> The *value*, or WORTH of a man, is as of all other things, his price; that is to say, so much as would be given for the use of his power: and therefore is not absolute; but a thing dependant on the need and judgement of another. … And as in other things, so in men, not the seller, but the buyer determines the price. For let a man, as most men do, rate themselves at the highest value they can; yet their true value is no more than it is esteemed by others (Hobbes 1946:57).

This theory of value applies to men and all other things equally. We now have the criteria for valuing things in the natural world, including animals, plants, insects, bacteria etc. Hobbes makes *value* a question of *price*, and what we are willing to *trade*. Thus only beings able to trade, and evaluate prices, are able to set the value of things. A rock cannot plausibly be assumed capable of setting a price on the existence of humans; humans, however, can set prices on the existence of rocks (in general, and individually, as they trade the fairer ones amongst themselves). If this is allowed to be the sole basis of value in a society, it seems *the natural world will be dependent on enough* people *appreciating it and judging it to be valuable.*

Honouring and dishonouring is connected to this setting of value, but Hobbes implies that animals are also able to value things; "[t]o obey, is to honour, because no man obeys them, whom they think have no power to help, or hurt them", which could lead us to say that an obedient dog is *honouring* his master; likewise "fear of another, is to honour" and "to fear, is to value", which means that men value the animals they fear for their natural power, for example (Hobbes 1946:58). Much of what Hobbes describes as honourable implies that animals that behave in ways conducive to their own prosperity, with little regard for others and few limits on what they want, are in fact quite honourable; this way of acting is described as a sign of power to achieve the things one wants (Hobbes 1946:60).

In the famous chapter *XIII* of *Leviathan*, Hobbes starts by explaining how men, with great variations among themselves, are physically equal *enough* so that no one can "claim to himself any benefit, to which another may not pretend, as well as he"; this is partly based on the fragility of men's bodies – a fragility that makes it possible even for the weakest among them to kill the strongest (with confederates, or craft) (Hobbes 1946:80). If this parity of *power* to harm is as important as it seems to be, some animals will rival, and even be *more* powerful, than most men. When it comes to mental abilities, Hobbes clearly states that very few men have *science* and the *acquired wit* that he previously claimed separated man and beast. Still, men are mentally equal *enough*, based on *comparable* prudence gained from experience, which we all get by sensing (Hobbes 1946:80). Animals are also sensuous beings that experience, and could plausibly be argued to be equal enough also in this respect.

Equality then leads to a *competition* for the scarce goods we desire, which again leads to *diffidence*, and diffidence to war. The third cause of quarrel is *glory*, which is our desire to be valued highly by others – something we are not likely to be, according to Hobbes (Hobbes 1946:80). This is life in Hobbes's *state of nature*; life without a common power to keep us in awe is characterised by a constant possibility of violence and conflict, and life there is "solitary, nasty, brutish and short" (Hobbes 1946:82).

Hobbes also strips this natural state of all *moral* terms, and says that here:

> [N]othing can be unjust. The notions of right and wrong, justice and injustice have there no place. Where there is no common power, there is no law: where no law, no injustice. Force, and fraud, are in war the two cardinal virtues. Justice, and injustice are none of the faculties neither of the body, nor mind. If they were, they might be in a man that were alone in the world, as well as his senses, and passions. They are qualities, that relate to men in society, not in solitude (Hobbes 1946:83).

"Men in society" – so no animals are a party to right or wrong, or the law. Men in society decide what is just, and the natural world is at their mercy; "thus much for the ill condition, which man by mere nature is actually placed in …" (Hobbes 1946:83, 176-7). *Nature* is not something positive in this part of Hobbes's philosophy – the natural *state* is deplorable, and man must, according to Hobbes, use his reason to escape this "ill condition".

Reason is, however, a natural ability of man (and partly beasts), so it could be argued that the natural condition of violence, where men do *not* follow their reason, is in fact quite *un*natural, after all? *Nature* is in the Hobbesian theory

deeply connected to the terms *state of nature*, *natural rights* and *laws of nature* – there is remarkably little "nature" in the form of non-artificial matter.

2.4.1 Natural rights, liberty and natural laws

> THE RIGHT OF NATURE, which writers commonly call *jus naturale*, is the liberty each man hath, to use his own power, as he will himself, for the preservation of his own nature; that is to say, of his own life; and consequently, of doing any thing, which in his own judgement, and reason, he shall conceive to be the aptest means thereunto (Hobbes 1946:84).

The *natural right* is the right to do whatever one perceives as conducive to survival, but why does Hobbes reserve this right to men? It seems obvious that animals have the same right in a state of nature, and that they are most likely excluded at the point of making contract – *not* by being ignored when nature (or Hobbes) "gave" this right to all creatures.

Liberty is the "absence of external impediment" – the space in which we are free to make use of our natural rights (Hobbes 1946:84). Hobbes's natural *laws* are the various rules men must follow in order to escape the chaotic natural state; to individually discover each of Hobbes's laws probably requires both language and reason (Hobbes 1946:84). While the "long form" laws of nature are quite specific, Hobbes also provides a shorthand version he assumes *all* will be able to understand:

> The laws of nature therefore need not any publishing, nor proclamation; as being contained in this one sentence, approved by all the world, *Do not that to another, which thou thinkest unreasonable to be done by another to thyself* (Hobbes 1946:177).

Hobbes does not explicitly state that he only refers to *men*, but it seems reasonable to assume that he does. However, this one sentence – Hobbes's summary of the laws of nature – would make a pretty decent starting point for a Hobbesian deep ecology if "another" included natural things (Hobbes 1946:177,191).

Since *all* have the right to *all* in the state of nature (even each other's bodies), the way we proceed from the state of nature to the state of society is of crucial importance. Hobbes only speaks of *man's* natural rights, and uses these as the basis of the social contract. The logical conclusion is that the parties to the contract (which had a right to all) – *all human* – now recognise *each others'* rights to all of nature; animals, plants and land become the *collective property of society*, now in the hands of the procurator: the sovereign. Later, if he considers it conducive to peace, the sovereign can give some rights back to the individuals. There are no animal *rights* possible in this setting, unless the sovereign decides to protect animals and the environment by law; no *inherent* rights for things not human exists in Hobbes's framework.

Thus, the ones allowed to contract will subsequently "own" all – nature and beasts – that is not a party in the contract. By some other arbitrary definitions, one could arrive at a situation where only the most reasonable, or strong, in society "contracted away" the rights of all others, and made *their* rights to all the sole foundation for the new exercise of rights. If this prospect seems unreasonable to us, why is Hobbes's proposal reasonable?

2.4.2 Hobbes's contract and animals

> The mutual transferring of right, is that which men call CONTRACT (Hobbes 1946:85).

Making pacts, covenants and contracts seems impossible for animals, so this part of Hobbes's theory is rightly reserved for men, but *which men*[3]? This "transferring of right" is a voluntary act, done in order to ensure some good to the person transferring, and this seems to limit the contracting parties to *men with reason*, capable of *voluntary actions*; the dead, the unreasonable, the mad, the young without language, the not yet born, etc. – are they part of Hobbes's contract (Hobbes 1946:84-5)?

[3] It is important to note that signs of contract can be "by inference" – and need not be in the form of language. A dog serving his master, could he, by inference ("consequence of actions") make the signs of a contract where servitude is traded for protection and food (Hobbes 1946:87-8)?

> To make covenants with brute beasts, is impossible; because not understanding our speech, they understand not, nor accept of any translation of right; nor can translate any right to another: and without mutual acceptation, there is no covenant (Hobbes 1946:90).

Hobbes's fifth law of nature is "COMPLAISANCE … *that every man strive to accommodate himself to the rest*" (Hobbes 1946:99). Should we grant animals *natural rights*, and venture to make a new form of contract where these rights are considered, this fifth law would be central. The act of accommodating oneself requires ability. Since many are probably quite inept at this, the sovereign has to make laws that ensure the compliance with this precept. Animals cannot follow human laws, but men, having the ability to reflect on own actions and limit themselves, could make laws that ensure some form of mutual accommodation. However, Hobbes says that the "insociable" ones could quite simply be expelled from society, which would be problematic for the approach just mentioned (Hobbes 1946:99).

Common for most of the natural laws is their explicit *forward-looking perspective*. Hobbes seems to say that in order to gain a future good, i.e. peace, we must ignore our impulses to focus on the past or the present. How far ahead we are to look remains to be seen, and that is what determines if our hopes for an environmentalist Hobbesian theory is a castle is the sky or not (Hobbes 1946:100). This will be the theme of part 3 of the paper.

> And therefore for the ninth law of nature, I put this, *that every man acknowledge another for his equal by nature*. The breach of this precept is *pride* (Hobbes 1946:101).

Substitute *man* with *being*, and we are, in fact, close to parts of deep ecology. Nature cannot contract, but it seems possible that guardians, or curators may represent living things:

> Likewise children, fools, and madmen that have no use of reason, may be personated by guardians, or curators; but can be no authors, during that time, of any action done by them, longer than, when they shall recover the use of reason, they shall judge the same reasonable (Hobbes 1946:107).

When a commonwealth is instituted, all transfer their natural rights to the sovereign (apart from the right to defend their own life). Could animals thus be included in this contract, by means of curators, guardians or the like?

2.5 The possibility of a broader social contract

It has become apparent that Hobbes does not consider animals a part of the social contract. Neither does he seem to consider them carriers of natural rights. We have, however, seen that his framework allows room for interpretation. Such an interpretation would be *Hobbesian* as long as it stays consistent with Hobbes's main premises and theory as a whole.

Hobbes's description of men and animals does *not* seem to exclude animals from having natural rights. They may also be argued to have some form of limited reason. This lets us propose the argument that animal rights *can* be incorporated in a Hobbesian theory, through Hobbes's notion of the unreasonable being represented by others. We would have to deal with animals as "children, fools, and madmen", and assign guardians or curators that are to represent them when the social contract is formed (Hobbes 1946:107). One problem when attempting to reconcile this adjustment with Hobbes's theory is that Hobbes seems to include these "unreasonable" individuals in the contract due to them having an ability to gain, or regain, full reason in the future (Hobbes 1946:107). The upside is that "fools" are also given rights, and we must assume that Hobbes here discusses people with permanently limited mental virtues, and some animals could possibly be argued to rival the most foolish men.

Since animals can't accurately communicate their interests, the guardians would have to attempt to derive it from some understanding of our common nature – the wish for survival and general contentment. Men (the wise ones) must realise their intellectual superiority and assume the responsibility of developing an order in which mutual accommodation between man, men and animals will be possible.

With this approach, animals' rights are given the same weight as that of men, and any apparent conflict of interest would have to be dealt with according to the dictates of Hobbes's natural laws.

In summary, it seems that man and animal are described as so similar that it is *possible* to argue their entry into the social contract. For our purposes in this paper, an obvious limitation to this approach is that it only allows us to care for the interests of the most "advanced" parts of the living world: the animals comparable to human fools. The simpler life forms, and the physical world, would be left at our mercy. The sketched approach is clearly *not* anything

resembling deep ecology, and it does not even say much about the shallow version of it. Another Hobbesian approach to the natural world must be considered: environmentalism as self-interest.

3 ENVIRONMENTALLY SOUND POLICY AS SELF-INTEREST

Animal rights could possibly, but not easily, be introduced through a reworked social contract. The question of Hobbes's view on *all* of nature, biotic *(living) and* abiotic *(physical)* remains. Will a Hobbesian commonwealth care for it, or will they follow their narrow and shortsighted self-interest and exploit all available resources for maximum current gain? If so, will they ignore all long-term issues following such an approach, or will they employ the problem-solving approach Næss refers to as shallow ecology? Or, as a final option, can we possibly imagine these Hobbesian self-interested agents to make something resembling a deep ecological commonwealth?

First, we will examine the purpose of the sovereign. Secondly, we examine a possible hurdle for a Hobbesian environmentalist theory: generational solidarity and issues of longevity. Pure self-interest may not be enough to make our Hobbesians "environmentalists", so Hobbes's stance on these issues is important. Thirdly, we'll consider environmental science and how ecology and *safety* are connected. Lastly, we will return to the big picture and see in what way an understanding of ecology can be considered essential for a fully developed human self-interest.

3.1 The purpose and office of the sovereign

> THE OFFICE of the sovereign, be it a monarch or an assembly, consisteth in the end, for which he was trusted with the sovereign power, namely the procuration of *the safety of the people* (Hobbes 1946:219).

Common peace and *safety*[4] is the goal of the sovereign – *the good of the people*; this must be our foundation for making a Hobbesian environmentalist theory (Hobbes 1946:116,219). Hobbes says that any current distribution that is counterproductive to the goals mentioned, is void; a distribution leading either to social unrest or insecurity can be justly disputed, and assumed *not* to be the proper will of the sovereign (Hobbes 1946:162). Hobbes has not detailed the explicit policies of "his" commonwealth; his criteria – peace and safety – must be our guide when considering whether a certain policy can be considered "Hobbesian" or not.

Because the sovereign is charged with making peace, he (or *they*, as the sovereign can also be an assembly) is "also judge of the means" (Hobbes 1946:112,116). He is to keep the peace at all costs, and "do whatsoever he shall think necessary to be done, both beforehand, for the preserving of peace and security, by prevention of discord at home, and hostility from abroad; and, when peace and security are lost, for the recovery of the same" (Hobbes 1946:116).

It is important to keep in mind that safety is *not* "bare preservation", but consists of "all other contentments of life, which every man by lawful industry, without danger, or hurt to the commonwealth, shall acquire to himself" (Hobbes 1946:219). As long as it is compatible with *peace*, people should have all the contentments they can get. Barely surviving at the mercy of a sovereign is not Hobbes's image of life in the commonwealth. However, safety *is* fundamental, so we must provide safety first; *then* we are allowed all the liberty, luxury and contentment we can muster without endangering peace.

In the commonwealth, the sovereign decides who gets what – establishes *propriety* – and Hobbes is clear about the basis of distribution:

> For seeing the sovereign, that is to say, the commonwealth, whose person he representeth, is understood to do nothing but in order to the common peace and security, this distribution of lands, is to be understood as done in order to the same (Hobbes 1946:162).

While many see Hobbes as the figurehead of philosophers catering to the arbitrary abusers of power, Hobbes himself describes a commonwealth ruled by *law* (Hobbes 1946:173). The only way to securely establish sound policies in a Hobbesian framework is through *laws*. The problem for liberals is that the sovereign is *above* the law in Hobbes's theory. He must be free to act on whatever he feels is most conducive to power, Hobbes says, and he must not be exposed to the justice system being used by the discontent to punish or depose him (Hobbes 1946:212).

[4] Hobbes uses both *safety* and *security* to describe the state of peace.

If we cannot include nature in the social contract, and thus derive societal rights from nature's own "natural rights", we must rely on the sovereign to make proper laws. This seems like the most plausible approach for our purpose, as most of nature will be without "rights", even if we should manage to include some *animals* in the contract. While the biotic parts of the earth are important, an ecological perspective requires that we also consider the abiotic world. Stone (1974) has discussed the possibility of giving "nature" legal standing, which is what I am here proposing the sovereign could do.

> [A]nnexed to the sovereignty, the whole power of prescribing the rules, whereby every man may know, what goods he may enjoy, and what actions he may do, without being molested by any of his fellow-subjects; and this is it men call *propriety* … These rules of *meum* and *tuum*, and of *good*, *evil*, *lawful*, and *unlawful* in the actions of subjects, are the civil laws; that is to say, the laws of each commonwealth in particular (Hobbes 1946:117).

Hobbes places his faith in the sound policies made by the sovereign, as each subject has little training in making long-term judgements about the welfare of the state (Hobbes 1946:120). The sovereign alone is in the proper position to make the overarching, long-term decisions for society as a whole. As a result of Hobbes's favourable view on the sovereign's position, he is naturally inclined to grant him close to unlimited powers. A Hobbesian government is clearly *strong government* – which, incidentally, some environmentalists have come to call for (Holsworth 1979).

3.2 Generational issues and longevity

Kavka (1986), in his book on Hobbesian moral and political theory, discusses the generational issue. Generations born after we are dead have *no* direct relation to us. Whatever they do cannot hurt us, but we can, should we choose, just about destroy the whole world they will inhabit. We have all the power, Kavka says, but are we doomed to exploit this asymmetry (Kavka 1986:443)?

> Morality requires us, at a minimum, to leave our descendants with enough resources to allow future people decent lives. But this would necessitate having a lower material standard of living than we could obtain by depleting resources and contaminating the environment whenever it is convenient to do so. If future generations cannot punish us for ruthlessly exploiting the earth in this way, does not rational prudence require it of us (Kavka 1986:443)?

For Hobbes, the purpose of every voluntary act is *some good to the actor* (Hobbes 1946:86,99). Despite many probably considering it a moral imperative to provide for our successors, this is not an obvious part of Hobbes's theory. Kavka himself mentions several Hobbesian incentives to solve the problem: immediate dangers from abuse of the planet, the fact that people *care* for the happiness of children and grandchildren, and a need for meaning leading to a desire for preservation of what we have worked for (Kavka 1986:443-4). Kavka's treatment of the issue is brief, and, as he admits, "less than fully convincing" (Kavka 1986:444). Kavka moves on with a slight sigh, and finds some comfort in the inability of others to solve the same conundrum:

> Supporters of Hobbesian theory can take considerable solace in the fact that the question of our duties to future generations is, on practically any moral theory, shot through with perplexities and paradoxes (Kavka 1986:444).

We must try to discover a more robust path from the self-interest of individuals to environmentalism. As we have seen, for Hobbes there is no *morality* apart from the laws of nature, so what he actually says about generational issues and longevity will have to be our guide.

3.2.1 Generational solidarity

If we take Hobbes seriously, which for our purpose we must, it is clear that some good to the contracting individuals *must* be considered their purpose:

> Whensover a man transferreth his right, or renouceth it; it is either in consideration of some right reciprocally transferred to himself; or for some other good he hopeth for thereby. For it is a voluntary act: and of the voluntary acts of every man, the object is some *good to himself* (Hobbes 1946:86).

> For no man giveth, but with intention of good to himself; because gift is voluntary; and of all voluntary acts, the object is to every man his own good […] (Hobbes 1946:99).

The contractors are *not* obligated to cater to the interests of future generations, and they are *not* obligated to care for the natural world (unless we manage to include parts of it in the contract, as we examined in part 2). So, what could possibly stop these contractors from building a commonwealth that exploits the world's resources without bounds, so long as the commonwealth will outlast themselves?

An initial source of a longer perspective is that Hobbes made it clear that *children's* rights are taken into account in the contract, through guardians or curators (Hobbes 1946:107). This means that the commonwealth must be made to last *at least* as long as the children living when the contract is made. Another angle for pursuing environmentally sound policies could be the desire for fame:

> Desire of fame after death … [despite us being dead] yet is not such fame vain; because men have a present delight therein, from the foresight of it, and of the benefit that may redound thereby to their posterity; which though they now see not, yet they imagine; and any thing that is pleasure to the sense, the same also is pleasure in the imagination (Hobbes 1946:64-5).

An attempt at establishing generational solidarity through the argument that we derive pleasure *now* from imagining future good and the good reputation that we will then get, seems very fragile. Hobbes does not describe most people as sufficiently focused on the long term (especially terms longer than our expected remaining life span). This is somewhat similar to the argument Kavka mentioned: people caring for the happiness of their offspring (Kavka 1986:443). This approach seems insufficient for our purposes, so we must find another basis for a multi-generational perspective in a Hobbesian framework. When quoting Cicero, Hobbes touches upon the question at hand:

> *Let the civil law*, saith he, *be once abandoned, or but negligently guarded, not to say oppressed, and there is nothing, that any man can be sure to receive from his ancestor, or leave to his children* (Hobbes 1946:160).

While searching for mentions of the relationship between past, present and future generations, we find Hobbes quoting Cicero on it. Unfortunately, he does not pursue the issue. Hobbes merely uses the quote to support his view that the civil law should regulate propriety, and that the sovereign must be able to control the distribution of the goods we need to live.

Cicero opens a door to a different approach, though, that could have been immensely valuable for our purposes: a contract must be made in such a way that it would ensure *us* getting what we need from our ancestors, and our children getting what they need from *us*. If Hobbes's social contract is considered a *factual* contract, this approach seems far-fetched. But, if we consider it a *hypothetical contract* (which I do), intended to establish legitimacy through *reflection*, this could indeed prove important.

3.2.2 A commonwealth's longevity

Luckily, Hobbes has stated his view on the longevity of commonwealths: they should be made to last *as long as mankind* (Hobbes 1946:209). The following also implies that Hobbes sees society as *anything but* a short term, one generation, undertaking:

> [S]o, long time after men have begun to constitute commonwealths, imperfect, and apt to relapse into disorder, there may principles of reason be found out, by industrious meditation, to make their constitution, excepting by external violence, everlasting (Hobbes 1946:220).

The commonwealth is to last as long as mankind, and (external forces not considered) be everlasting. This takes us quite a long way from the jumble of self-interested psychopaths, scrambling to destroy the earth as quickly as possible in search for quick gains. The implications are at least two-fold: a) the preconditions for life, and commonwealth, must be protected, and b) the state must be ordered in such a way as to minimise the risk for internal disruption. A further point would be to ensure the protection from external forces, which will not be considered here.

The first line of argument concerns biodiversity, essential resources and preserving the general preconditions for human life. This is the traditional focus of environmental ethics, but it is not certain that environmental problems will

be *immediate* enough for Hobbes's individuals. We may have to supplement the first argument, a), with the argument b), claiming that *a "short-term state" will be unstable*.

Will the young, the conscientious, the lovers of nature, the ones caring about their children and grandchildren, stand by and let the world be exploited to the point of destruction (shortly) after their lifetimes? One would hope not, and it seems plausible enough to assume that they *would* not. Put Hobbes himself in the pillaging commonwealth, and even *he*, on the basis of his demand for longevity, would object. If enough people object to a state's policies, the state becomes unstable. The short version of the second argument is: *a state not built to be secure, can fall at any time*. Thus, this would pose a risk to us *now*, and a Hobbesian theory is clearly risk-averse in its search for stability.

These two arguments *together*, seems to be the most promising way towards a Hobbesian environmentalist theory. We must build *stable* commonwealths in relation to nature and its subjects. The sovereign is Hobbes's architect – the one charged with ensuring the solidity of the building known as the commonwealth:

> [T]hey cannot without the help of a very able architect, be compiled into any other than a crazy building, such as hardly lasting out their own time, must assuredly fall upon the heads of their posterity (Hobbes 1946:210).

3.3 Ecology and safety

Having discussed men, and animals, at length, Hobbes eventually touches upon the abiotic part of the world:

> As for the plenty of matter, it is a thing limited by nature, to those commodities, which from the two breasts of our common mother, land and sea, God usually either freely giveth, or for labour selleth to mankind … For the matter of this nutriment, consisting in animals, vegetals, and minerals, God hath freely laid them before us, in or near to the face of the earth: so as there needeth no more but the labour, and industry of receiving them. Insomuch as plenty dependeth, next to God's favour, merely on the labour and industry of men (Hobbes 1946:160).

God has provided plenty, Hobbes says. When we need more, we simply need to apply more labour and industry. So, Hobbes mentions natural resources, but clearly does not caution against the overexploitation of the earth, the fact that resources could run out, or that man can actually make extinct some parts of the world that could be useful to us. This perceived superabundance of what we need was the prevalent view until more modern times, and Smith and Smith (2006) describes the change that occurred:

> What had been perceived throughout human history as a limitless frontier had suddenly become a tiny sphere: limited in its resources, crowded by an ever-expanding human population, and threatened by our use of the atmosphere and the oceans as repositories for our consumptive wastes (Smith and Smith 2006:2).

Hobbes goes on to show that some things grow, or are found, at home, other things abroad, so that we must either trade, or wage war, in order to get what we need – for the "nutrition, and procreation of a commonwealth" (Hobbes 1946:160-1). There is very little here in support of a deep ecological philosophy, so it seems obvious that we have to develop our own Hobbesian theory of political ecology if we are to be able to examine one.

3.3.1 The science of the environment

> Where are we going? We are heading for a crash. We are in a performance car that has no driver, no reverse gear and no brakes and it is going to slam into the limitations of the planet (Latouche 2009:2).

In order to evaluate the need for environmentalism in order to provide safety, we must consult science. I have based most of this section on two reports that discuss how imminent, and how serious, the threats to our habitat is. The first is a report by Jørgen Randers (2012), one of the authors of the Club of Rome's famous *The Limits to Growth*, published in 1972. In the report "2052: A global forecast for the next forty years", he discusses several themes, including population size, climate change, production and growth, and resources and wilderness (Randers 2012). I also examine the last report from the Intergovernmental Panel on Climate Change: "Climate Change 2013: The physical science basis. Summary for Policymakers" (2013).

Randers opened this article with his statement on the small and fragile world, populated by a "huge, dangerous and powerful" collection of human beings (Randers 2012:2). Our potential for destruction is beyond debate, but how imminent is the crash Latouche describes so vividly (if we are indeed about to crash at all)?

Randers does not like the situation we have put ourselves in, and he sees the need for major change if we are to reach a sustainable order, or "at least, that the world as we know it survives for a couple of hundred more years" (Randers 2012:2). His perspective is the next forty years, and he is not very concerned about population growth. Our current numbers do not frighten him, and he thinks urbanisation will stagger the growth:

> *Even* poor people (I mean this ironically, of course) are wise enough to understand that having a large family is not a good idea when you live in an urban area. It was a good idea to have many children in the countryside when people were farming their own food, but it doesn't work in cities. You can see this already in existing fertility statistics, which are coming down very rapidly (Randers 2012:4).

A more pressing problem for Randers is the plateauing, and then the decline, of nations' GDP. Slower economic growth, or even *no growth* or a contraction, is a problem that will require drastic changes in our societies:

> It's not only the City analyst who will worry about my forecast of slowing economic growth in the rich world over the coming decades; most people feel that growth is desirable. The fundamental reason why most people favour growth is that it is the only way modern society has found to solve three problems effectively: poverty, unemployment, and pensions (Randers 2012:5).

Few speak of the coming end of growth (least of all the Wall Street or City analysts), Randers says, but he explains why he expects it with *slowing productivity growth* (from production gradually moving from industry to services) combined with *a shrinking workforce* (Randers 2012:5). Latouche *has* discussed the end of economic growth at length, and having a plan for Randers's scenario seems indispensable (*even if* we should believe that continued growth is most likely):

> We know that simply contracting the economy plunges our societies into disarray, increases the rate of unemployment and hastens the demise of the health, social, educational, cultural and environmental projects that provide us with an indispensable minimal quality of life. It is not difficult to imagine the catastrophes that negative growth would bring about (Latouche 2009:8)!

For Latouche, "degrowth" is not an ideology, but a *necessity*; we have to evaluate forms of society that don't require perpetual growth. Theoretically, he prefers the term "a-growth" (as in atheism), for the science that "reject the irrational and quasi-idolatrous cult of growth for growth's sake" (Latouche 2009:8).

This – a move away from focusing on constantly expanding GDP's – is also an issue for Næss and deep ecology (Næss 1999:171-208). Næss says that we need to find the difference between *great* and *big*, and both Latouche and Næss seek to evaluate quality of life with criteria far distant from ones based on consumption etc. (Næss 1999:29,201). A goal for Latouche is to "live better lives whilst working less and consuming less" (Latouche 2009:9).

Latouche also discusses Kenneth Boulding's famous "spaceship Earth"-metaphor, and names him one of very few economists (at least in his time) to see the problems with maximising consumption (Latouche 2009:16). The "cowboy economy" is based on "predation and the pillaging of natural resources", while the "spaceman economy" is Boulding's attempt at forcing a view of the world as finite, and sustainability as a necessity (Latouche 2009:16). According to Latouche, he "concludes that anyone who believes that exponential growth can go on for ever in a finite world is either a madman or an economist" (Latouche 2009:16).

The theme of *economic growth* is too substantial to be treated at length in this paper. It is, however, an interesting theme in relation to Hobbes's philosophy and *economics* – another intersection that is theoretically interesting and not discussed in detail by Hobbes himself.

Randers moves on, and shows a bit more pessimism:

> Over the next 40 years, in addition to all the resource, pollution and inequity problems that we have already, humanity will run into more problems of depletion, pollution, adaption, repair of climate damage, etc, because we will be trying to fit an excessive amount of activity onto a small globe (Randers 2012:6).

Randers expects to "start seeing the destruction of the global ecosystem" around 2050. This certainly leads us towards a view of Latouche's crash as quite imminent! If things will get this drastic in 40 years, within many of our lifetimes, a Hobbesian call for action would be easily justified. Randers, however, thinks societies will continue to pretend the problems don't exist, until they are far too pressing to be ignored – for example, when we run out of easily extractable (and thus cheap) oil (Randers 2012:6). By 2050, he's afraid there won't be any "real nature" left outside of parks – the rest having been used for habitation or agriculture (Randers 2012:11). While *wilderness* is not necessarily a precondition for life, many people greatly appreciate it, and as a source of contentment, and perhaps health, this must also be considered.

Holsworth (1979) lamented some environmentalists' call for authoritarian Hobbesian solutions to ecological problems, and Randers can serve as an example of these. Randers laments (as Hobbes) the short-term focus of human activity, and thinks that neither capitalism nor democracy is capable of getting us past short-sightedness in order to secure a future for the coming generations (Randers 2012:12). The problems aren't insoluble, though, as the problem is "the way we have chosen to organise our societal decision-making" (Randers 2012:12). This leads to one of his three prescriptions for solving our problems: support for *strong government*; the other two are to have fewer children and to reduce our CO^2 footprint (Randers 2012:14-15).

Moving on from Randers' call for strong government and predicted crises, consider the Nobel Peace Prize-winning IPCC's report. The IPCC won the peace prize in 2007 (a joint prize with Al Gore) – a sign that many now consider environmentalism, and the climate, as clearly connected to peace and safety. The Norwegian Nobel Committee is "highlighting the link they see between the risk of accelerating climate change and the risk of violent conflict and wars" (Smith 2014). The US military has also declared, "the problems of adjustment to climate change constitute a far more severe threat to national and international security than does terrorism itself" (Brennan and Lo 2011). Dealing with the issue of climate change, the IPCC state that changes *are* taking place:

> Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentration of greenhouse gases have increased (IPCC 2013:2).

Climatic variations over time is natural, so the most interesting part of their research is that they find human activity to be a clear factor of climate change (IPCC 2013:9,13). Our influence is mainly due to fossil fuel burning and land area change (IPCC 2013:9). The levels of CO^2, methane and nitrous oxide now in the atmosphere are "unprecedented in at least the last 800,000 years", and the more we learn about how the climate system works, the clearer our influence becomes (IPCC 2013:9,13).

> Human influence has been detected in warming the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes … This evidence for human influence has grown since AR4. It is *extremely likely* that human influence has been the dominant cause of the observed warming since the mid-20th century (IPCC 2013:15).

Human influence is named (with "extreme likelihood") to be the *dominant cause* of warming, and a "large fraction of anthropogenic climate change resulting from CO^2 emissions is irreversible on a multi-century to millennial time scale" (IPCC 2013:15,26). Doubts are also raised about the "problem-solving" approach to the problem, such as building solar shields in space or capturing CO^2 artificially; there is little science to support the existence of plausible geoengineering efforts to solve the problems, and the solutions that *could* solve some warming problems could carry unwanted and unpredictable (long term) side effects (IPCC 2013:27). The only solution they see is a "large net removal of CO^2" (IPCC 2013:26).

The report from IPCC is not as instructive when it comes to determining the *time* of Latouche's crash, but they go a long way in stating that *human beings are changing the climate*, and that *the consequences could be quite substantial*.

Returning to Boulding's metaphor, it seems reasonable to assume that we on spaceship Earth are using our ship's resources in an unsustainable way. In the *long* term, this is clearly (as the term "unsustainable" implies) a bad idea, unless we plan to get a new spaceship in the future. A working spaceship is, in the foreseeable future, a necessary condition for living – it is our *environment*. A stable environment that provides the required physical conditions for life is a necessary precondition for the growth and survival of the organism known as man (as it is for all other organisms) (Smith and Smith 2006:4).

Smith and Smith (2006) identify four environmental problems that we have caused, and now face: "human population growth, biological diversity, sustainability, and global climate change" (Smith and Smith 2006:7). While population growth does not pose an imminent risk for our lives, according to Randers, the consequences of our numbers are quite drastic already. From a smaller population, living mainly in rural areas (in the beginning of the 20th century only 25 per cent of the population lived in urban areas), we are now over 7 billion human beings, the percentage living in urban areas approached 80 per cent as we started the 21st century, and the percentage was rising (Smith and Smith 2006:577).

> In all, our activities have transformed between 40 and 50 percent of the terrestrial surface to produce food, fuel and fibre, and our transformations of the natural environment have led to the extinction of thousands of species (Smith and Smith 2006:577).

Species extinction – the loss of biodiversity – could be a strong argument for a change of environmental policy, and more than 150 nations signed the "Convention on Biodiversity" in 1992, at the UN Earth Summit in Brazil (Smith and Smith 2006:628). As with climate change, "[t]he primary cause of species extinction is habitat destruction that results from the expansion of human populations and activities. Historically, the largest cause of land transformation has been the expansion of agricultural lands to meet the needs of a growing human population" (Smith and Smith 2006:608). But why all the fuss about *diversity*?

> Although there are many reasons voiced, the arguments as to the importance of maintaining biodiversity can be grouped into three categories: economic, evolutionary and ethical (Smith and Smith 2006:628).

While the ethical argument is not to be dismissed, it carries little force when tested against our Hobbesian backdrop. The economic and evolutionary arguments seem more promising in our setting. "The economic argument is based largely on self-interest", Smith and Smith (2006) says, and is based on the fact that a large amount of the food we eat are a result of, or a part of, biodiversity, and "every time we buy a drug or other pharmaceutical, there is almost a 50:50 chance that we can attribute some of the essential constituents to a wild species" (Smith and Smith 2006:628). The second argument is based on genetics:

> The current patterns of biodiversity are a product of ecological and evolutionary processes that have acted on species that existed in the past … [T]he mass extinction of modern-day species limits the potential evolution of species diversity in the future (Smith and Smith 2006:628).

When discussing *safety*, health is an obvious factor, and Smith and Smith (2006) sketches out some consequences of global climate change:

> Climatic change will have a variety of both direct and indirect effects on human health. Direct effects would include increased heat stress, asthma, and a variety of other cardiovascular and respiratory ailments. Indirect health effects are likely to include increased incidence of communicable diseases, increased mortality and injury due to increased natural disasters (floods, hurricanes, etc.), and changes in diet and nutrition due to changed agricultural production (Smith and Smith 2006:652).

A reasonable summary thus far could be that while we are on a collision course, the crash isn't necessarily imminent. This could allow the short-sighted egoists to keep calm and carry on, thinking that any calamity will fall upon someone else, while they reap the benefits of the of the current productive order. We saw, however, that Hobbes demanded a longer perspective, and an order built to last. If the egoists exist, the sovereign must legislate away the possibility of benefitting from the unsustainable exploitation of the earth.

3.4 Ecology as self-interest

Having examined the purpose of the sovereign, Hobbes's views on generational issues and longevity, and modern science, we have uncovered three ways in which bad environmental policy can be seen as contrary to self-interest:

1. Pollution and the overexploitation of resources can lead to immediate problems of health, destroyed habitats and changed conditions of life.
2. Long term unsustainability is a threat due to

a. uncertainty regarding the *time-scales* and *consequences* of crises, because of the complex interdependence of factors.

b. social instability caused by unsustainable policies.

3. Contentment and health are promoted by *biodiversity* and the *presence of wilderness*.

The first argument is traditionally the domain of "shallow ecology". When we clearly perceive the problems we cause, and when the consequences are immediate, it is obviously in our interest to mitigate these problems. This kind of "environmental policy" is not very interesting to us, as we search for an Hobbesian *environmentalist* theory, and this would involve taking *precautions* against overexploitation and the destruction of nature – not just rolling along and attempting to fix the issues we inevitably cause.

The second argument is far more interesting. It is hard to argue for sustainability based on a *moral responsibility* based on the inherent rights of animals and nature in a Hobbesian setting. We have, however, found another Hobbesian way to sustainability. The sovereign is charged with securing peace and safety, and allowing the subjects all the contentment that are compatible with this. The sovereign is also supposed to make a commonwealth that lasts as long as *mankind* (barring external violence). These demands from Hobbes would exclude the possibility of consciously running unsustainable policies. The first reason is that unsustainable policies are contrary to an "everlasting" commonwealth, as nature is a *precondition* for human life. We also found a supplemental argument: 2 b); unsustainable short-term policies could be argued to lead to social instability. *Long-term* environmental destruction could lead to social unrest *now*.

The third argument for protecting the environment consists of multiple parts. We have seen that biodiversity is *economically* beneficial, as the food we eat, and the improvements of our foodstuffs and productivity is dependent on healthy ecosystems and the preservation of diversity. We have seen that diversity can be conducive to health (and economics) through nature's contributions to our drugs and pharmaceutical industry, and we saw that biodiversity had a *genetic* element that emphasises the risks of losing future genetic variations if we reduce biodiversity.

Wilderness is partly an issue in relation to the preservation of biodiversity, as various forms of wilderness is the natural habitat of countless life forms that can hardly be assumed to adopt human urbanisation and colonise human settlements. A vast amount of life forms will quite simply die – become extinct – if humans continue to expand their settlements and agricultural land areas.

The other side of wilderness, or "untouched nature", is that many see it as a crucial part of their *contentment of life*. Hobbes does not discuss the value of being in touch with nature, but Næss, and many others, have thoroughly discussed the benefits of living in and experiencing the "wild" side of nature. While we could argue that the immense *value* placed by some on the possibility of experiencing nature could be enough to justify protecting it in a Hobbesian framework, it could also be directly *healthy* for people to have access to wilderness and *space*:

> Research on the high requirements of free space of certain mammals has, incidentally, suggested that theorists of human urbanism have largely underestimated human life-space requirements. Behavioural crowding symptoms [neuroses, aggressiveness, loss of traditions …] are largely the same among mammals (Næss 1973:96).

It is clearly *possible* to make a Hobbesian environmentalist argument. There is, however, need for more knowledge and research on a) what political solutions we should employ in order to preserve the environment, and b) the *negative consequences* of these solutions.

Some problems must be acknowledged: the counter arguments from market liberals. They claim that free trade and economic growth promotes peace and order, that it fosters contentment of lives, and that growth will lead to new technologies that will solve what we now perceive to be serious future problems. Furthermore, reduced, or eliminated, economic growth could cause poverty, unemployment and a problem of pensions, as Randers mentioned.

This is where political scientists, economists, ecologists and others will have to continue their research: is it possible to control the economic system that has developed, that is everywhere, crosses borders, and at times seems to be beyond political control? This system, that is built on the possibility of unlimited growth, and which seems to have a hard time taking the long term into consideration, is perhaps more akin to the biblical *Leviathan* than most modern states.

4 CONCLUSION

We started the paper by examining the way Hobbes describes man and animal. While claiming that a Hobbesian theory of animal rights could plausibly be argued, we saw that it a) required reinterpretation of Hobbes's own writings and b) was limited in it's reach, as only "higher life forms" would be helped by this approach.

Hobbes's basic framework is so obviously humanistic ("dualistic" in Meyer (2001)'s terms, which he contrasts with naturalism/"derivation") and materialist that we found a far more promising approach in the second part of the paper, which dealt with environmentalism as self-interest. The humanistic, and individualist, aspects found in Hobbes' philosophy also made it obvious to us that a Hobbesian "deep ecology" must be considered something close to a contradiction in terms.

If we are to use Næss's eight points from the introduction as our template, we could imagine how a "Hobbesian ecology" could look:

1. The flourishing of human and non-human life on Earth is a precondition for all life, and thus valuable, and *good*. The value of non-human life forms is derived from the part they play in this context.
2. Humans have the right to reduce natural richness and diversity, but hurt themselves if they do so beyond satisfying vital needs.
3. Present human interference with the non-human world is excessive, and the situation is rapidly worsening.
4. The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of non-human life requires such a decrease.
5. Significant change of life conditions for the better requires change in policies. These affect basic economic, technological, and ideological structures.
6. The ideological change is mainly that of appreciating *life quality* (dwelling in situations with intrinsic value) rather than adhering to a high standard of living. There will be a profound awareness of the difference between big and great.
7. Those who subscribe to the foregoing points have an obligation to *want* the necessary changes, but not to endanger themselves in order to make them happen.

The first point is the replacement for Næss's two first points. Næss says all things have inherent value, while Hobbes says no thing has inherent value, and that value is simply a question of price and what we are willing to pay or trade for it (Hobbes 1946:32-3). This is perhaps the most obvious departure from deep ecology. The third point is for science to answer, and with regards to the fourth, Hobbes does not go into detailed discussions about population size. He *does*, however, say that constantly growing populations will inevitably lead to war (Hobbes 1946:227). This makes the fourth item in the list plausible also from a Hobbesian stance, especially if science agrees with the need for a limitation of human population size because of environmental pressure.

I have left the fifth and sixth items as Næss wrote them, without attaching too much weight to them in this paper. I agree with Næss in the assumption that men can get *contentment* from other things than consumption, and the fifth point seems obvious. If we are to achieve a fundamental change in our relationship with the natural world, changes – some of them drastic – must occur.

Finally, the seventh point is derived from Hobbes's statement about the moral obligation that follows from an understanding of the natural laws (which is our basis for deriving the Hobbesian environmentalist theory):

> The laws of nature oblige *in foro interno*; that is to say, they bind to a desire they should take place: but *in foro externo*; that is, to the putting them in act, not always. For he that should be modest and tractable, and perform all he promises in such time and place where no man else should do so, should but make himself a prey to others, and procure his own certain ruin, contrary to the ground of all laws of nature which tend to nature's preservation. And again, he that having sufficient security that others shall observe the same laws towards him, observes them not himself, seeketh not peace, but war, and consequently the destruction of his nature by violence (Hobbes 1946:ch 15).

The examination of Hobbes's theory and modern science made it clear that there is no conflict between his theory and environmentalism, as environmentalism can be considered essential for our short- and long-term survival. Peace,

safety, contentment and everlasting commonwealths is what Hobbes prescribes, and a healthy relationship with nature seems crucial in order to achieve these things.

The practical aspects of "environmentalist politics" must, however, be developed; the issues that would follow economic degrowth could easily be imagined to be devastating. This will be a central research area in the times to come, if we are to solve the challenges we face.

Hobbes has provided us with a framework, but was neither equipped, nor willing, to deal with details like the ones now discussed. *We* have to evaluate what is conducive to peace, stability and the good of the people. What we end up choosing depends on political ideals, faith in innovation and inclination to play a risky game with the condition for all life on earth. The stronger the science that deals with the importance of preserving diversity and the environment grows, the stronger the argument in favour of calling environmentally sound policy the proper choice for a Hobbesian commonwealth.

> Diversity enhances the potentialities of survival, the chances of new modes of life, the richness of forms. And the so-called struggle of life, and survival of the fittest, should be interpreted in the sense of ability to coexist and cooperate in complex relationships, rather than ability to kill, exploit and suppress. 'Live and let live' is a more powerful ecological principle than 'Either you or me' (Næss 1973:96).

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