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Digital force: disrupting life, liberty and livelihood in the information age

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3 Social Contract Theory on State Sovereignty

*NOW this is the Law of the Jungle — as old and as true as the sky;
And the Wolf that shall keep it may prosper, but the Wolf that shall break it must die.*¹²³

3.1 Introduction

As explained in Chapter 2, because of the trends in the digital universe of acceleration, miniaturization and dematerialization, the constituting dimensions of the digital universe are expanding into and merging with, the physical universe. Resultantly, cyberspace is everywhere, accessible by everyone and connected to everything. With this increased presence of cyberspace comes the question whether this new space can or should fall within the realm of State sovereignty. In other words, should cyberspace be another sovereign space, akin or analogous to other spaces which already fall under State sovereignty, such as terrestrial territory, internal- and territorial waters and water- and territorial airspace?¹²⁴ Or, alternatively, should cyberspace perhaps be a space which remains the Common Heritage of Mankind, akin or analogous to other spaces which are already the Common Heritage of Mankind, such as the high seas¹²⁵ and outer space?¹²⁶

Cyber libertarians and anarchists have argued since the 90s that cyberspace is a naturally free space and that it therefore also naturally falls beyond the sovereignty of States.¹²⁷ Cyber libertarians hence argue that cyberspace should be regarded as a space which is the Common Heritage of Mankind.¹²⁸ This position was captured and expressed famously (and quite beautifully) by poet and cofounder of the Electronic Frontier Foundation, John Barlow, in his internet manifesto at the World Economic Forum in 1996.¹²⁹ The historical setting of this manifesto is important in order to provide the context in which it was written. At the time, Barlow had been attending the elite World Economic Forum in Davos, Switzerland for the past four days, where world leaders in government, business and philanthropy had been setting out

¹²³ R. Kipling, *The Jungle Book* (1894), *The Law of the Jungle*.

¹²⁴ See *supra* note 12.

¹²⁵ See *supra* note 12.

¹²⁶ See *supra* note 17.

¹²⁷ See e.g., J. Barlow, *A Declaration of the Independence of Cyberspace*, World Economic Forum, Davos, Switzerland, February 8, 1996, available at: <https://www EFF.org/cyberspace-independence> (accessed on 31st July, 2017).

¹²⁸ *Id.*

¹²⁹ See Barlow, *A Declaration of the Independence of Cyberspace*.

their positions on cyberspace and their goals and strategies on how to control it. Simultaneously, on the same day, President Bill Clinton signed the Communications Decency Act into law, which empowered the Federal Communications Commission (FCC) to ban the transmission of obscene material on the Internet just as it did on radio and network television. Barlow, a cyber libertarian, must have felt like Mankind was about to lose cyberspace, a space he believed deeply should be the property of Mankind as a collective and not the property of individual States. His manifesto announced to the "[g]overnments of the industrial world", those "weary giants of flesh and steel" that they have no place in cyberspace and that they should stay away from the "tyrannies [they] seek to impose on us".¹³⁰ After all, "Governments derive their just powers from the consent of the governed" and, Barlow continued, "[they] have neither solicited nor received ours."¹³¹ Rather, cyberspace, those captured and cultivated parts of the digital universe where Mankind has created order and civilization out of the vast chaos and wilderness, according to Barlow and others, will either be self-governed by the good will of the people or, alternatively, they are "naturally independent" because States do not possess "any methods of enforcement we have true reason to fear".¹³²

Barlow's claims are powerful and his arguments need to be addressed. There are two main arguments; one of right and one of might. If Mankind has never, implicitly or explicitly, surrendered control over cyberspace to States and if Mankind was the original rightful owner, then by what *right* then can States claim control over it? And, even if Mankind has had the original rightful ownership over cyberspace and has since chosen to surrender it, by what *might* can the non-physical domain of cyberspace even be effectively controlled by States? What method of enforcement does one use in a world which is digital?

Any legal theory which proclaims that (parts of) cyberspace ought to fall within the realm of State sovereignty, needs to provide convincing arguments that (parts of) this new space should in fact fall within the realm of state sovereignty and will have to do so pursuant to the legal theory on State sovereignty.

¹³⁰ *Id.*

¹³¹ *Id.*

¹³² Barlow, A Declaration of the Independence of Cyberspace: "Where there are real conflicts, where there are wrongs, we will identify them and address them by our means. [...] It is an act of nature and it grows itself through our collective actions. [...] Our identities have no bodies, so, *unlike you, we cannot obtain order by physical coercion*. We believe that from ethics, enlightened self-interest, and the commonweal, our governance will emerge. Our identities may be distributed across many of your jurisdictions. The only law that all our constituent cultures would generally recognize is the Golden Rule. We hope we will be able to build our particular solutions on that basis." (emphasis added); see also Section 2.2. Barlow uses cyberspace where I would use 'digital universe'.

In this dissertation, I will argue that cyberspace is indeed to some extent an inherently free space, as argued by Barlow and others like him. Contrary to them however, I argue that this freedom is not unlimited and I argue this position precisely because cyberspace concerns those captured and cultivated parts of the digital universe where Mankind has created order and civilization out of the vast chaos and wilderness. To use Barlow's phrasing; I posit that cyberspace is naturally *dependent* upon State sovereignty – at least partially.¹³³ Thereto, I will argue that (certain) parts of cyberspace can, do and will fall in the realm of State sovereignty. In other words, I will argue that there is both a right of States to control parts of cyberspace and a might to do so. More specifically, I will point at two types of activities in cyberspace which clearly do fall within the realm of State sovereignty - namely the protection against large-scale theft of intellectual property and the protection against durable disruption of critical infrastructures. In Chapter 5, I will deal in depth with large-scale theft of intellectual property and argue that this is as severe as territorial aggrandizement. In Chapter 6, I will deal in depth with durable disruption of critical infrastructures and argue that this is as severe as a territorial blockade. These are the questions of right. In Chapter 4, I will deal with the question of might as I discuss how to establish effective control over the domain of cyberspace.

In this chapter specifically, I will build the theory that will be used in Chapters 4-6 to argue that the protection against large-scale theft of intellectual property and durable disruption of critical infrastructures in cyberspace does, in fact, fall within the realm of State sovereignty. Thereto, I will argue that the applicability of the principle of State sovereignty over any space – whether it is land, air, water or cyber - is conditional upon two principles; 1. use of force can be exercised there to inhibit the self-determination of the individuals present there (this is the part which concerns the question of *right*), and 2. States are able to exercise effective control over these spaces to prevent this use of force (this is the part which concerns the question of *might*). The theoretical basis for these two principles will be laid in this current chapter. They will be applied practically to the domain of cyberspace in Chapters 4-6. In Chapter 4, I will deal in depth with principle 2 and the criteria of effective control. In Chapters 5 and 6, I will deal with principle 1 and the criteria of the use of force.

In order to set out the theoretical framework for the applicability of State sovereignty over a certain space, I will take an historical approach and build the theory from the ground up. Thereto, Section 3.2 will first deal with the laws of *nature*. It will explain that in the state of

¹³³ See *supra* note 132.

nature, each life form – which includes us as *homo sapiens* –, acts in accordance with an inherent drive to self-determination and will therefore act in self-preservation in any way deemed necessary for the twin goals of survival and reproduction. Among the indispensable instruments for the pursuit of these goals, I will argue, is the use of force. Subsequently, Section 3.3 will deal with the laws of *men*. It will take the findings of 3.2 and extrapolate them to their logical, natural conclusion. It will explain why acting in self-interest logically and naturally points towards the agreement among men to recognize each other's right to self-determination so that they may each enjoy better lives. In this section, I will also explain that this right logically and naturally entails a prohibition on the use of force aimed against the life, liberty and property of other participants to the agreement. Following this, Section 3.4 will deal with the laws of *States*. It will explain why the legitimacy of the State is originated upon the protection of the life, liberty and property of its citizens and their collective expression as a people - both within the State between individual citizens and beyond the State from external aggression. It will explain that this legitimacy upon which State sovereignty rests, is conditional upon the degree to which the State can exercise effective control over the protection of these interests within given spaces – such as territorial-, water-, air- and cyberspace. Finally, Section 3.5 will deal with the laws of the *international order*. In this section, I will move the discussion on the prohibition on the use of force to the international level and explain, pursuant to the domestic analogy, why the protection of sovereign existence, political independence and territorial integrity are the collective forms of the protection of life, liberty and property in the state of nature which exists not between individuals, but between States. This section will also explain why the legitimacy of the international legal order is similarly conditional upon the effectiveness of the international legal order to protect States from the use of force against them, especially when it is directed against their sovereign existence, political independence and territorial integrity.

In sum, this present chapter will deal with the *theory* of State sovereignty over spaces in general and argue that it rests upon the effective control within certain spaces to protect the lives, liberty and property of the individuals living there, as well as their collective expressions as sovereign existence, political independence and territorial integrity. In the following chapters, this theory will be applied in *practice* to the domain of cyberspace specifically. Chapter 4, will deal with the effective control part of the equation and apply it to the domain of cyberspace. Chapters 5 and 6, will elaborate on this and deal with the areas where States can exercise use of force against the life, liberty and property of people through cyberspace. Chapter 5 will argue that large-scale intellectual property theft constitutes a use of force which States

need to (be able to) protect its citizens against. Chapter 6 will argue the same for durable disruption of critical infrastructures.

3.2 On the Laws of Nature

In nature, every life form acts according to its perceived self-interest in order to survive and to reproduce. Doing so is the *conditio sine qua non* for its continued existence and reproductive success in an environment where there is competition for scarce resources - such as food and reproductive opportunities. Pursuant to the law of the jungle and evolutionary biology, the zebra competes with other zebras for greener grazing pastures, the lion hunts the zebra for food in order to sustain himself and when this almighty king of the jungle comes home, he has to fight off other lions for the possibility to mate.

In nature, there are many strategies for competing successfully. Some life forms get their energy directly from the sun in the sky (*i.e.* photosynthesis) or from hydrothermal vents at the bottom of the ocean (*i.e.* chemosynthesis). Other life forms get their energy by consuming these former life forms (*i.e.* herbivores) and even other life forms consume this latter category (*i.e.* carnivores). In this competition for scarce resources, life forms can compete between and across species and they can do so through conquest and through cooperation. Although cooperation - such as the zebra moving in herds to decrease the chances of being killed and the lion moving in prides in order to increase the chances of a successful hunt - seems more social, noble and less conflictuous than conquest, in fact, this strategy of cooperation, when properly understood, is, just like conquest, simply another strategy by which the ability of the individual to compete successfully against others and against other groups in a world of scarce resources, is increased pursuant to self-interest.

Homo sapiens is no exception to the laws of nature. Man acts according to his perceived self-interest in order to survive and to reproduce. Doing so is the *conditio sine qua non* for his continued existence and reproductive success in an environment where there is competition for scarce resources - such as food and reproductive opportunities. Initially, man did not make much use of the strategy of cooperation - kinship and kindness were instead reserved for next of kin and kind only.¹³⁴ Instead, the preferred tactics and strategies were based on conquest.¹³⁵

¹³⁴ See generally S. Pinker, *The Better Angels of Our Nature – Why Violence has Declined* (2012) (hereinafter: “*The Better Angels of Our Nature*”), Chapters 1-2 (2012). Bedouin proverb: “I against my brother, I and my brother against our cousin, I, my brother and our cousin against the neighbors, all of us against the foreigner.”

¹³⁵ See generally Pinker, *The Better Angels of Our Nature*, Chapters 1-2 (2012).

Whenever an individual or a band of people perceived that it could best further its interests through the use of force, by killing, raping and stealing from individuals within the group or from another band of people, then inhibitions from doing so were merely of a pragmatic, tactical or strategic nature - and *vice versa*.¹³⁶ *Homo homini lupus est*.

In this competition within and between these individuals and bands of people, the individual bears the ultimate responsibility for maintaining the ability to the self-determination of his own tactics and strategies. Because of this original situation where (attempts at) conquest by others was such a common occurrence, the use of force is an indispensable instrument for the individual to do so. Given this fact and because acting in self-preservation when one's ability to the self-determination of his own tactics and strategies is threatened, is so closely connected to (human) nature and instinct, it should come as no surprise that throughout the history of legal and political philosophy, various authorities have attempted to describe the right to act in self-preservation through self-defense against aggression in superlative degrees of being supreme and, above all as being 'natural'.¹³⁷ This connection of one's right to self-defense to human nature is said to be caused by ones 'inborn', 'innate' or 'inherent' desire to protect those interests which are vital to one's self-preservation.¹³⁸ Darwinian evolution, that universal law of biological nature, has selected for those individuals with the burning desire to fight for their survival when their lives are threatened and selected against those who didn't, wouldn't or couldn't. The result of this is that *homo sapiens* – just like the rest of the animal kingdom - naturally acts in self-preservation and will use force whenever necessary.

Because of this, in this original situation, the individual may and will do so by any and all means, *i.e.*, he may use force in self-defence pre-emptively, preventively, punitively or in any manner deemed necessary for self-preservation.¹³⁹ As in this original situation there are

¹³⁶ *Id.*

¹³⁷ See especially T. Hobbes, *Leviathan*, Chapter XIV (1651): "The RIGHT OF NATURE, which Writers commonly call *Jus Naturale*, is the Liberty each man hath, to use his own power, as he will himselfe, 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, hee shall conceive to be the aptest means thereunto." (emphasis added)

¹³⁸ *Id.*

¹³⁹ See Hobbes, *Leviathan*, Chapter XIV: "The RIGHT OF NATURE, which Writers commonly call *Jus Naturale*, is the Liberty each man hath, to use his own power, as he will himselfe, 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, hee shall conceive to be the aptest means thereunto." (emphasis added); see also J. Locke, *Two Treatises of Government: In the Former, The False Principles, and Foundation of Sir Robert Filmer, and His Followers, Are Detected and Overthrown. The Latter Is an Essay Concerning The True Original, Extent, and End of Civil Government, Second Treatise* (1689) (hereinafter: "Second Treatise of Government", Chapter II, sect. 8: "in the state of nature, one man comes by a power over another; but yet no absolute or arbitrary power, to use a criminal, when he has got him in his hands, according to the passionate heats, or boundless extravagancy of his own will; but only to retribute to him, so far as calm reason and conscience dictate, what is proportionate to his

none other than oneself to protect one's interests, none can be there to inhibit one's protection of these interests either.¹⁴⁰ Whereas modern legal systems would prohibit most of these types of self-defence, few would call for similar prohibitions in this original situation.¹⁴¹ Instead, beasts bear no burdens of boundaries in this a-moral state of nature and man is allowed, pursuant to his natural rights to act in self-preservation, to do whatever is deemed necessary.¹⁴² Indeed, in this original situation where contact with others was mostly to be feared, one often *has* to act pre-emptively, preventively and/or punitively, because such actions are often necessary for the effective deterrence of both the immediate and potential future aggression.¹⁴³ There is great

transgression, which is so much as may serve for reparation and restraint: for these two are the only reasons, why one man may lawfully do harm to another, which is that we call punishment." (emphasis added), Chapter II sect. 12: "By the same reason may a man in the state of nature punish the lesser breaches of that law. It will perhaps be demanded, with death? I answer, *each transgression may be punished to that degree, and with so much severity, as will suffice to make it an ill bargain to the offender, give him cause to repent, and terrify others from doing the like.*" (emphasis added) Locke continues in section 12 by inserting a disclaimer that it is "besides [his] present purpose, to enter here into the particulars of the law of nature or the measure of punishment". Although this mentioning of proportionality seems to indicate a somewhat measured or limited response, the justification for acting against transgression are reparation and restraint. The latter of these justifications, would, when properly applied to a state of nature situation, entail a measure of force which would be hard to classify as 'proportional' under modern definitions thereof, instead being pre-emptively, preventively, punitively or in any manner deemed necessary. Given the lack of information about enemy behavior, the default modus for behavior would be to assume a policy of overwhelming aggression. Only reasons of a pragmatic nature of self-interest would dictate otherwise sometimes, not natural law.

¹⁴⁰ See Hobbes, *Leviathan*, Chapter XIII: "To this warre of every man against every man, this also is consequent; that *nothing 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 warre the two Cardinall vertues. 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. It is consequent also to the same condition, that there be no Propriety, no Dominion, no Mine and Thine distinct; but onely that to be every mans that he can get; and for so long, as he can keep it.*" (emphasis added); see also Locke, *Second Treatise of Government*, Chapter II, sect. 6: "But though this be a state of liberty, yet it is not a state of licence: [...] The state of nature has a law of nature to govern it, which obliges every one: and *reason, which is that law, teaches all mankind, who will but consult it, that being all equal and independent, no one ought to harm another in his life, health, liberty, or possessions.*" (emphasis added). Contrary to Hobbes, Locke's legal theory is predicated and build on the notion that a universal law of nature exists - which is reason - which governs even 'lawless' situations. Although it seems entirely possible for all men to understand that other men may or will have the same vital interests as he does, the categorization of such a realization as law seems like confounded wishful thinking which reflects a poor understanding of the state of nature - which is based on might, not right.

¹⁴¹ *Id.*

¹⁴² *Id.*

¹⁴³ See Locke, *Second Treatise of Government*, Chapter II, sect. 11: "[...] the damnified person has this power of appropriating to himself the goods or service of the offender, by right of self-preservation, as every man has a power to punish the crime, *to prevent its being committed again*, by the right he has of preserving all mankind, and doing all reasonable things he can in order to that end: and thus it is, that *every man, in the state of nature, has a power to kill a murderer, both to deter others from doing the like injury, [...] by the unjust violence and slaughter he hath committed upon one, declared war against all mankind, and therefore may be destroyed as a lion or a tyger, one of those wild savage beasts, with whom men can have no society nor security: and upon this is grounded that great law of nature, Whoso sheddeth man's blood, by man shall his blood be shed.*" (emphasis added) Although Locke's argumentation is predicated and build upon the notion that a universal natural law is transgressed through which the transgressors has placed himself not in the society of Mankind, but in the Kingdom of nature, even without this argumentation Locke emphasizes the need for effective deterrence of transgressions against the vital interests of men.

tactical and strategic benefit for the individual in striking first, in striking hard and in striking often.

Philosophers have theorized what game-theorists have modeled and what anthropologists, primatologists and archeologists have discovered to be true in practice, namely that the result of the incentive to strike first, hard and often which exists in the state of nature is a *bellum omnium contra omnes*, a war of all against all.¹⁴⁴ In the original situation where each man acts pre-emptively, preventively and punitively in self-preservation, waging war is in fact the logical, natural option for all and it happens everywhere, all the time.¹⁴⁵ War is a constant factor of life.¹⁴⁶ Resultantly, as famously and brilliantly stated by Hobbes, there is “continual fear, and danger of violent death; and the life of man, solitary, poor, nasty, brutish, and short.”¹⁴⁷

However, although this original situation of war of all against all is the natural state and although it is the result of logical choices pursuant to self-interest on the micro-level by each individual man, it is not the optimal utilitarian result pursuant to the collective self-interest on the macro-level for Mankind.¹⁴⁸ As will be explained in more detail in the next section, through

¹⁴⁴ Cf. Hobbes, *Leviathan*, Chapter XIII “From this equality of ability, ariseth equality of hope in the attaining of our Ends. And therefore if any two men desire the same thing, which neverthelesse they cannot both enjoy, they become enemies; and *in the way to their End*, (which is principally their owne conservation, and sometimes their delectation only,) *endeavour to destroy, or subdue one another*. [...] There Is Alwayes Warre Of Every One Against Every One Hereby it is manifest, that *during the time men live without a common Power to keep them all in awe, they are in that condition which is called Warre; and such a warre, as is of every man, against every man*.” (emphasis added); see also generally Pinker, *The Better Angels of Our Nature*, Chapters 1-2 (2012). Archaeologists and anthropologists have, respectively, discovered and observed that peoples living in a state of nature, both past and present, live in a situation in which war is far more prevalent than in environments where the State has monopolized violence. Despite modern methods of killing, the chance of dying by another person’s hands is much greater in the state of nature; see e.g. generally J. Goodall, *Through a Window: My Thirty Years with the Chimpanzees of Gombe* (2010). Goodall is a famous primatologist who studied *Pan troglodytes* (chimpanzee), our evolutionary closest living relative. Goodall observed that chimpanzees regularly engage in genocidal wars with other groups of chimps.

¹⁴⁵ *Id.*

¹⁴⁶ *Id.*

¹⁴⁷ See Hobbes, *Leviathan*, Chapter XIII: “*Whatsoever therefore is consequent to a time of Warre, where every man is Enemy to every man; the same is consequent to the time, wherein men live without other security, than what their own strength, and their own invention shall furnish them withall. [...] and which is worst of all, continuall feare, and danger of violent death; And the life of man, solitary, poore, nasty, brutish, and short*.” (emphasis added)

¹⁴⁸ See Hobbes, *Leviathan*, Chapter XIII: “And from hence it comes to passe, that where an Invader hath no more to feare, than another mans single power; *if one plant, sow, build, or possesse a convenient Seat, others may probably be expected to come prepared with forces united, to dispossesse, and deprive him, not only of the fruit of his labour, but also of his life, or liberty*. And the Invader again is in the like danger of another.” [...] In such condition, there is no place for Industry; because the fruit thereof is uncertain; and consequently no Culture of the Earth; no Navigation, nor use of the commodities that may be imported by Sea; no commodious Building; no Instruments of moving, and removing such things as require much force; no Knowledge of the face of the Earth; no account of Time; no Arts; no Letters; no Society [...].” (emphasis added)

cooperation, the interests of the whole can be served to a greater extent than the sum of its parts can be in the original situation of constant conquest.

Before we come to explaining the mechanisms underlying this stated conclusion, it is important to explore first whether it is in the interest of *all* men to cooperate. After all, if there are exceptions by which some men can pursue their self-interest better through conquest in this war of all against all, then cooperation is not in their self-interest and they will hence not wish to cooperate with others. Fortunately, these exceptions do not seem to exist in any way which would warrant hesitance against taking cooperation as the goal to pursue. Since the nature of Mankind is such that all men are essentially 'equal in body and mind', no man can successfully conquer all consistently.¹⁴⁹ Although one man may be significantly or even overwhelmingly stronger than another or even than many - both in faculties of mind and body - during a specific time-frame and although this physical or mental superiority might create a want in a man to claim and exercise a right of might when his competitive advantage is such, there is always the eventual necessity of sleep, the fading of one's physical and mental faculties with age and the danger of groups ganging up on one when political allegiances change.¹⁵⁰ Conquest therefore is a long-term successful strategy for no man.

Hence, since no man can consistently pursue his self-interest best through conquest, in order to increase one's chances of competing successfully, acting in self-preservation naturally and logically entails increasing cooperation with others along certain agreements on common interests. The reason why cooperation can be the mode of interaction which has the most positive cost/benefit outcome for the collective, is because, as pointed out by Dawkins, in nature there are many so-called non-zero sum games.¹⁵¹ Whereas in *zero-sum* games the gains of one of the players necessarily must come at the expense of the other player(s), and hence conquest is the optimal tactical and strategical choice in these games, in *non-zero-sum* games, the gains

¹⁴⁹ See Hobbes, *Leviathan*, Chapter XIII: "Nature hath made men so equall, in the faculties of body, and mind; as that though there bee found one man sometimes manifestly stronger in body, or of quicker mind then another; yet when all is reckoned together, the difference between man, and man, is not so considerable, as that one man can thereupon claim to himselfe any benefit, to which another may not pretend, as well as he.". (emphasis added); see Locke, *Second Treatise of Government*, Chapter II, sect. 4: "A state also of equality, wherein all the power and jurisdiction is reciprocal, no one having more than another; there being nothing more evident, than that creatures of the same species and rank, promiscuously born to all the same advantages of nature, and the use of the same faculties, should also be equal one amongst another without subordination or subjection, unless the lord and master of them all should, by any manifest declaration of his will, set one above another, and confer on him, by an evident and clear appointment, an undoubted right to dominion and sovereignty.". (emphasis added)

¹⁵⁰ See Hobbes, *Leviathan*, Chapter XIII: "For as to the strength of body, the weakest has strength enough to kill the strongest, either by secret machination, or by confederacy with others, that are in the same danger with himselfe.". (emphasis added)

¹⁵¹ See R. Dawkins, *The Selfish Gene*, at 202-240.

of each of the players can come not necessarily only at the expense of the other player(s), but also at the expense of the 'house' (which is a metaphor for an optimal result), thus warranting cooperation to 'beat the house'.¹⁵² In other words, in non-zero-sum games, as opposed to zero-sum games, the players have the possibility to play the game in such a way that they do not compete against each other for a larger part of the same pie, but rather, that they can instead cooperate to compete together against the house for a larger pie than had previously been accessible.¹⁵³ By sharing the spoils which come at the expense of the house, the interests of both players can hence be better served and resultantly, they can compete better than those who do not cooperate.¹⁵⁴ For example, two small groups of hunter/gatherers wandering the same forest can agree, implicitly or explicitly, to no longer kill, rape and steal from the other group. Although this agreement does not change anything about the carrying capacity of the forest – such as the amount of animals living or plants growing there –, it does greatly reduce the amount of time and energy both groups have to spend in preparation of, waging of and recovering from war against the other group. Men can hunt animals without the fear of coming home with their kills stolen, women can gather fruits, nuts and vegetables without the fear of being raped or kidnapped and none have to spend the same amount of time in the preparation for, waging of and recovering from war against the other. All this recovery from wasted hunts and loss of life, health and productivity, as well as those costly setbacks of insurance policies through preparations for fear of such setbacks, can be diminished, thereby negating the great expenses in time and energy which were previously necessary for continued secured survival.

Correspondingly, through cooperation, there can be a great increase in the amounts of time and energy both groups can spend on finding food and on reproducing. In other words, through cooperation and non-conquest, both groups can serve their own respective interests better than they could previously and they can therefore now also compete more successfully against other groups which do not have such arrangements with their neighboring groups. The resources of time and energy can be spend much more productively through cooperation. The pie grows.

In sum, the laws of nature are such that *homo sapiens* – like all other life forms -has a natural instinct and right to use force to act in self-preservation and that he may do so preventively, pre-emptively and punitively. However, given the war of all against all that this

¹⁵² *Id.*

¹⁵³ *Id.*

¹⁵⁴ *Id.*

original situation naturally creates, this situation is not the optimal result for the pursuit of one's self-interest. Moreover, this is true for everyone. A strategy of conquest in this original situation is the optimal result for no one. Rather, self-determination logically points to attempting to cooperate so that people can compete not against each other for a larger share of the same pie, but against the house for a share of a new, larger pie. The condition for achieving this is however that they can achieve an agreement on which common interests they can cooperate on and an approach on how to achieve these interests. The next sections will deal with these interests and the ways to achieve them. Generally speaking Section 3.3 will deal with which common interests are naturally, logically arrived at and Section 3.4 will deal with which tactics and strategies are naturally and logically employed in this pursuit, namely the appointment of a neutral arbiter of disputes in the shape of a State.

3.3 On the Laws of Men

From this original situation, these common interests can be rationally arrived at and distilled into the acceptance of the single agreement among participants of the mutual recognition of one another's right to self-determination, *i.e.*, the recognition of the right of each individual in the agreement to pursue one's own self-interest according to one's own tactics and strategies without being limited in this pursuit by other participants to the agreement through the use of force.¹⁵⁵ Such an agreement frees one from the burden of having to spend much of his time and energy in preparing for, conducting off and recovering from war against aggression from the other participants to the agreement using force against him - as such is no longer necessary *vis-à-vis* the other participants to the agreement (at least, not so long as the agreement is kept or so long as it is perceived that it will stay kept). Slowly but surely, these agreements not to use force let participants compete successfully against other groups which did not have such agreements.

Consequently and eventually, this agreement and agreements like it would free up the time, energy and security which would end up laying the basis for modern civilization. Prior to the laws of men, there could be "no place for Industry; because the fruit thereof is uncertain; and consequently no Culture of the Earth; no Navigation, nor use of the commodities that may

¹⁵⁵ See Hobbes, *Leviathan*, Chapter XIV: "By liberty is understood, according to the proper signification of the word, the absence of external impediments; which impediments may oft take away part of a man's power to do what he would, but cannot hinder him from using the power left him according as his judgement and reason shall dictate to him."

be imported by Sea; no commodious Building; no Instruments of moving, and removing such things as require much force; no Knowledge of the face of the Earth; no account of Time; no Arts; no Letters; no Society”.¹⁵⁶ In other words, without the security provided by the laws of men, no one would find it a risk worthy tactic or strategy to invest the time, energy and resources necessary to produce advanced products – such as ‘Culture of the Earth’ –, which could simply be stolen or destroyed after production.¹⁵⁷ Similarly, as will be discussed in extensive detail in Chapter 5, without the laws of men, there would not be the trade and specialization of profession which is necessary to result in advanced services either – such as research into the ‘Knowledge of the face of the Earth’.¹⁵⁸ Without the agreement on the mutual right to self-determination, life would be poor indeed.

This agreement of the mutual recognition of one another's right to self-determination, *i.e.*, the recognition of the right of each individual in the agreement to pursue one's own self-interest according to one's own tactics and strategies without being limited in this pursuit by other participants to the agreement through the use of force, entails the prohibition by participants to the agreement of any actions which could force other participants to the agreement to act in a manner not of their own volition.¹⁵⁹ It requires an ‘absence of external impediments’. A variety of philosophers and authors have enumerated different interests which would need to be respected to enable the right to self-determination to be exercised.

A comparison of these and other philosophers leads to the *grosso modo* classification of *life, liberty* and *property* as the vital interests which need to be protected by the agreement.¹⁶⁰ This classification, I will demonstrate later in this section, is no accident, but rather, as I will argue, reflects law derived from (human) nature. Thus, the agreement of recognition of one

¹⁵⁶ See Hobbes, *Leviathan*, Chapter XIII.

¹⁵⁷ *Id.*

¹⁵⁸ *Id.*

¹⁵⁹ *Id.*

¹⁶⁰ Cf. Locke, *Second Treatise of Government*, Chapter II, Sect. 6: “Every one, as he is bound to preserve himself, and not to quit his station wilfully, so by the like reason, when his own preservation comes not in competition, ought he, as much as he can, to preserve the rest of mankind, and may not, unless it be to do justice on an offender, take away, or *impair the life, or what tends to the preservation of the life, the liberty, health, limb, or goods of another.*”, Chapter VII, sect. 87: ” Man being born, as has been proved, with a title to perfect freedom, and an uncontrouled enjoyment of all the rights and privileges of the law of nature, equally with any other man, or number of men in the world, *hath by nature a power, not only to preserve his property, that is, his life, liberty and estate, against the injuries and attempts of other men; but to judge of, and punish the breaches of that law in others, as he is persuaded the offence deserves, even with death itself, in crimes where the heinousness of the fact, in his opinion, requires it.* (emphasis added); J. Rousseau, *On the Inequality among Mankind* (1754), part II: “[...] For what reason, in fact, did they take to themselves superiors, if it was not in order that they might be defended from oppression, and have *protection for their lives, liberties and properties*, which are, so to speak, the constituent elements of their being?”. (emphasis added)

another's right to self-determination entails the agreement of recognition that each individual has a mutual and reciprocal vital interest to the protection of his life, liberty and property and that no force may be used by those entering into the agreement which threaten or attack these interests by the other participants to the agreement.

For the purposes of this dissertation, these interests need to be defined. As announced in the introduction to this chapter, I will argue that (parts of) cyberspace must necessarily fall within the realm of State sovereignty as they constitute a minimum threshold for any society to meet in order for it to be able to survive. Given that my justification for this claim will be built on the interests I am about to define, I will try to define these interests rather narrowly. An overly expansive definition would provide shaky foundations for the theory I am building on top of it. I will therefore try to err on the side of caution. Others may have more expansive or more restrictive definitions of these interests, but this is how I define them for the purposes of this dissertation.

The interest to 'life' should be seen as one's very existence and one's physical integrity, *i.e.*, one's life and limb, or one's physical 'person'.¹⁶¹ This right is the constituting biological prerequisite for one's self-preservation. Any use of force against the whole or part of life or the body, through murder, assault, torture or other use of force, is a direct attack on one's self-preservation and an inhibition of one's right to self-determination. The interest of an individual to his 'life' should naturally be deemed to enjoy the status of being the supreme and ultimate interest among the three.

The interest to 'liberty' should be seen as one's interest to pursue one's own self-interest pursuant to one's own choosing, tactics and strategies.¹⁶² This right can be described as the psychological prerequisite for life in the sense that the biological prerequisite to life is of little value when one is imprisoned.¹⁶³ Life, in essence, is about being free, about self-determination. Any agreement which guarantees life at too great an expense to liberty will naturally be rejected

¹⁶¹ See *supra* note 160; see also Locke, *Second Treatise of Government*, Chapter XIX, sect. 233: "for it is natural for us to defend life and limb"; see also Rousseau, *On the Inequality among Mankind*, part II: "Man's first feeling was that of his own existence, and *his first care that of selfpreservation*." (emphasis added)

¹⁶² See *supra* note 160; see also Hobbes, *Leviathan*, Chapter XIV: "By LIBERTY, is understood, according to the proper signification of the word, the absence of externall Impediments: which Impediments, may oft take away part of a mans power to do what hee would; but cannot hinder him from using the power left him, according as his judgement, and reason shall dictate to him."

¹⁶³ *Id.* See also Rousseau, *On the Inequality among Mankind*, part II: For what reason, in fact, did they take to themselves superiors, if it was not in order that they might be defended from oppression, and have protection for their lives, liberties and properties, which are, so to speak, *the constituent elements of their being?*". (emphasis added)

and have no participants. Hence, any use of force against the freedom of an individual to freely determine one's tactics and strategies in the pursuit of one's goals, through imprisonment, slavery, forced labour or other threats of force, is a direct attack on self-determination. The interest of an individual to his 'liberty' should be deemed as an indispensable interest which gives substance to the interest to life. Without liberty, there can be no life worth living.

The interest to 'property' finally, describes one's material goods and possessions, the fruits of one's labor, the means of one's livelihood.¹⁶⁴ Although it is tempting for the present writer for alliteration purposes to choose the term 'livelihood' as the third protected vital interest, the term does not accurately reflect the protected interest. Livelihood refers to the means through which one secures the basic necessities to sustain oneself - such as the immediate resources of air, water, food, and clothing and possibly also the less immediate resources of safety and security, such as shelter. Any property freely acquired beyond these basic necessities does not fall under the category of livelihood. Products and services acquired for purposes of belonging, esteem, self-actualization or simple want of luxury would hence not fall within the term livelihood. Although it is clear that livelihood would be a suitable term to describe the interests one would need to protect for immediate and semi-immediate physiological security, the term does not encompass the full scale of property against which use of force could be exercised to inhibit one's right to self-determination. Although a use or threat to use force against one's house or place of business would entail a stronger inhibition on one's right to self-determination than would a use or threat to use force against one's second house, nonetheless, all would inhibit one's right to self-determination. After all, one can imagine that someone has spent years of his life building such a house. When force is used (or threatened) against this property, it is, in essence, (a threat of) force against these years of one's life. When the house is destroyed, this person is retroactively no longer able to freely pursue his own self-interest according to his own tactics and strategies during that time. Although the protection of property can be placed lowest among the three interests, it must be asserted that the protection of one's material goods constitutes a physical prerequisite for one's life and liberty when it comes to the protection of basic property for physiological and safety and security needs. We are after all not animals whose means of attaining food or having shelter are attached to our physical bodies in the form of, respectively, claws or fur. Rather, these means have been externalized and have taken the form of property. (Chapter 6 will deal with this in-depth.) Additionally, any use of

¹⁶⁴ See *supra* note 160; see also *infra* Sections 5.25.4. Chapter 5 in general and Sections 5.25.4 in particular are dedicated to describing property as a vital interest.

force – such as theft or otherwise barring access to freely determine what to do with one’s property – against the property which doesn’t serve a direct physiological need, but merely a psychological want, can also force an individual to act in a manner not of his own volition and should therefore also fall within the agreement to the mutual right of self-determination.

As we take a leap forward in time and look at established States and other legal systems, we find that beyond the protection of these interests of life, liberty and property in philosophy and theory by the most authoritative political philosophers, as we have just discussed, we also find these same interests protected as rights in law and practice in the most authoritative legal documents.

On the global level, the 1948 United Nations Declaration of Human Rights (hereinafter: “UN Declaration of Human Rights”) – which is arguably one of the most authoritative and formative documents of our modern global civilization - after having dealt with the articles on equality¹⁶⁵ and non-discrimination,¹⁶⁶ starts in article 3 with the articles on the protection of life and liberty by declaring that “[e]veryone has the right to *life, liberty and security of person*.”¹⁶⁷ In other words, the UN Declaration of Human Rights declares that the first substantive human right, is the protection of the right to life and liberty, thus corresponding to what we have seen are the natural and logical supreme and ultimate interests any rational person serving his self-interest would want to protect. After dealing with several additional articles on how to substantively protect these rights to life and liberty – such as the protection from slavery,¹⁶⁸ torture,¹⁶⁹ having one’s liberty taken away through arbitrary arrest or through a lack of due legal process,¹⁷⁰ restrictions of movement¹⁷¹ and from being forced into a marriage not of one’s own choosing¹⁷² -, it continues in article 17 with the protection of property by declaring that “(1) Everyone has the right to own *property* alone as well as in association with others. (2) No one shall be arbitrarily deprived of his *property*.”¹⁷³ (emphasis added) In other words, the primary rights which this foundational document of the international legal order seeks to protect are the rights to life, liberty and property, thus corresponding to the most supreme and ultimate interests any rational person serving his self-interest would want to protect. Throughout the UN

¹⁶⁵ Article 1 United Nations Declaration of Human Rights.

¹⁶⁶ Article 2 United Nations Declaration of Human Rights.

¹⁶⁷ Article 3 United Nations Declaration of Human Rights.

¹⁶⁸ Article 4 United Nations Declaration of Human Rights.

¹⁶⁹ Article 5 United Nations Declaration of Human Rights.

¹⁷⁰ Article 6-11, 14-15 United Nations Declaration of Human Rights.

¹⁷¹ Article 13 United Nations Declaration of Human Rights.

¹⁷² Article 16 United Nations Declaration of Human Rights.

¹⁷³ Article 17 United Nations Declaration of Human Rights.

framework, codifications of these same rights can also be found. The 1966 International Covenant on Civil and Political Rights (hereinafter: “ICCPR”), one of the most important universal human rights documents, starts in article 6 with the rights to physical integrity by stating that the parties to the covenant agree that “[e]very human being has the *inherent right to life*. This right shall be protected by law. No one shall be arbitrarily deprived of his *life*.”¹⁷⁴ (emphasis added) In article 9 the covenant continues with the liberty and the security of person by stating that “[e]veryone has the *right to liberty and security of person*. No one shall be subjected to arbitrary arrest or detention. No one shall be deprived of his *liberty* except on such grounds and in accordance with such procedure as are established by law.”¹⁷⁵ (emphasis added)

On the European level, codifications of these same rights and the protection against their encroachments can also be found throughout. The 1950 European Convention on Human Rights follows a similar structure to that of the UN Declaration of Human Rights and comes to the same points even quicker and even more decidedly. Article 2, which deals with the right to life, states in paragraph 1 that “[e]veryone’s right to *life* shall be protected by law.” (emphasis added) with exceptions extensively defined as severely restricted to necessary uses of force in defence of the self or in defence of the public order.¹⁷⁶ Article 5 continues with an extensive definition of the right to liberty, starting with “[e]veryone has the right to *liberty and security of person*.” (emphasis added) and containing extensive juridification for exceptions to this right.¹⁷⁷ Besides

¹⁷⁴ Article 6 ICCPR.

¹⁷⁵ Article 9 ICCPR.

¹⁷⁶ Article 2(2) ECHR: “Deprivation of *life* shall not be regarded as inflicted in contravention of this Article when it results from the *use of force* which is no more than absolutely necessary: (a) *in defence of any person from unlawful violence*; (b) *in order to effect a lawful arrest or to prevent the escape of a person lawfully detained*; (c) *in action lawfully taken for the purpose of quelling a riot or insurrection*.” (emphasis added)

¹⁷⁷ Article 5 ECHR: “1. *Everyone has the right to liberty and security of person*. No one shall be deprived of his *liberty* save in the following cases and in accordance with a procedure prescribed by law: (a) the lawful detention of a person after conviction by a competent court; (b) the lawful arrest or detention of a person for noncompliance with the lawful order of a court or in order to secure the fulfilment of any obligation prescribed by law; (c) the lawful arrest or detention of a person effected for the purpose of bringing him before the competent legal authority on reasonable suspicion of having committed an offence or when it is reasonably considered necessary to prevent his committing an offence or fleeing after having done so; (d) the detention of a minor by lawful order for the purpose of educational supervision or his lawful detention for the purpose of bringing him before the competent legal authority; (e) the lawful detention of persons for the prevention of the spreading of infectious diseases, of persons of unsound mind, alcoholics or drug addicts or vagrants; (f) the lawful arrest or detention of a person to prevent his effecting an unauthorised entry into the country or of a person against whom action is being taken with a view to deportation or extradition. 2. Everyone who is arrested shall be informed promptly, in a language which he understands, of the reasons for his arrest and of any charge against him. 3. Everyone arrested or detained in accordance with the provisions of paragraph 1 (c) of this Article shall be brought promptly before a judge or other officer authorised by law to exercise judicial power and shall be entitled to trial within a reasonable time or to release pending trial. Release may be conditioned by guarantees to appear for trial. 4. Everyone who is deprived of his liberty by arrest or detention shall be entitled to take proceedings by which the lawfulness of his detention shall be decided speedily by a court and his release ordered if the detention is not lawful. 5. Everyone who has been the victim of arrest or detention in contravention of the provisions of this Article shall have an enforceable right to compensation.” (emphasis added)

articles on the protection of life and liberty, in its first protocol, the Protocol to the Convention for the Protection of Human Rights and Fundamental Freedoms, the convention starts out with the protection of property, by stating that “[e]very natural or legal person is entitled to the peaceful enjoyment of his *possessions*.”¹⁷⁸ (emphasis added) In other words, just as we have seen on the global level with the UN framework, on the European level too, we see that human rights documents reflect human nature in their protection of the interests of life, liberty and property.

Additionally, we can also discern a consistent pattern in the protection of these rights by extensive, additional prohibitions against especially egregious encroachments on these rights – such as through torture and slavery. In the case of the prohibition on torture, these can be found in the UN Declaration on Human Rights in article 5,¹⁷⁹ in article 7 of the ICCPR¹⁸⁰ and in article 3 of the ECHR.¹⁸¹ In the case of prohibitions on slavery, these can be found in the UN Declaration on Human Rights in article 4,¹⁸² in article 8 of the ICCPR¹⁸³ and in article 4 of the ECHR.¹⁸⁴ Furthermore, slavery and other types of forced labour are comprehensively and

¹⁷⁸ Article 1 ECHR Protocol I: “*Every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law.* The preceding provisions shall not, however, in any way impair the right of a State to enforce such laws as it deems necessary to control the use of property in accordance with the general interest or to secure the payment of taxes or other contributions or penalties.” (emphasis added)

¹⁷⁹ Article 5 UN Declaration on Human Rights: “No one shall be subjected to *torture* or to *cruel, inhuman or degrading treatment or punishment*.” (emphasis added)

¹⁸⁰ Article 7 ICCPR: “No one shall be subjected to *torture* or to *cruel, inhuman or degrading treatment or punishment*. In particular, no one shall be subjected without his free consent to medical or scientific experimentation.” (emphasis added)

¹⁸¹ Article 3 ECHR: “No one shall be subjected to *torture* or to *inhuman or degrading treatment or punishment*.” (emphasis added)

¹⁸² Article 4 UN Declaration on Human Rights: “No one shall be held in *slavery* or *servitude*; *slavery and the slave trade shall be prohibited in all their forms*.” (emphasis added)

¹⁸³ Article 8 ICCPR: “1. *No one shall be held in slavery; slavery and the slave-trade in all their forms shall be prohibited.* 2. *No one shall be held in servitude.* 3. (a) *No one shall be required to perform forced or compulsory labour;* (b) Paragraph 3 (a) shall not be held to preclude, in countries where imprisonment with hard labour may be imposed as a punishment for a crime, the performance of hard labour in pursuance of a sentence to such punishment by a competent court; (c) For the purpose of this paragraph the term “forced or compulsory labour” shall not include: (i) Any work or service, not referred to in subparagraph (b), normally required of a person who is under detention in consequence of a lawful order of a court, or of a person during conditional release from such detention; (ii) Any service of a military character and, in countries where conscientious objection is recognized, any national service required by law of conscientious objectors; (iii) Any service exacted in cases of emergency or calamity threatening the life or well-being of the community; (iv) Any work or service which forms part of normal civil obligations.” (emphasis added)

¹⁸⁴ Article 4 ECHR: “1. *No one shall be held in slavery or servitude.* 2. *No one shall be required to perform forced or compulsory labour.* 3. For the purpose of this Article the term “forced or compulsory labour” shall not include: (a) any work required to be done in the ordinary course of detention imposed according to the provisions of Article 5 of this Convention or during conditional release from such detention; (b) any service of a military character or, in case of conscientious objectors in countries where they are recognised, service exacted instead of compulsory military service; (c) any service exacted in case of an emergency or calamity threatening the life or wellbeing of the community; (d) any work or service which forms part of normal civic obligations.” (emphasis added)

extensively defined as prohibited in the 1926 Convention to Suppress the Slave Trade and Slavery (subsequently supplemented with the 1956 Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery).¹⁸⁵ Similarly, torture is comprehensively and extensively defined as prohibited in the 1984 Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment.¹⁸⁶ Again we see that the framework on human rights protection, both on the global and regional level, is principally built around the protection of the interests of life, liberty and property.

Although these rights to life, liberty and property, as well as their negative inverse of torture and slavery, are defined differently in different legal systems, I believe their pervasive presence in political philosophy as well as in regional and international legal systems across time and space is not a historical coincidence, but rather, that it reflects a fundamental logic to legal systems which is demonstrated by both philosophy and theory, as well as by law and practice. This fundamental logic boils down to the point I have already made earlier, namely that on a fundamental level, what we call ‘law’ is a collection of codified private agreements which have been made pursuant to rational self-interest in order to increase self-determination through the prohibition on the use of force against life, liberty and property. These rights to life, liberty and property are not coincidental and subjective rights within one legal systems or another. Rather, they reflect fundamental universal laws of nature about the nexus between the

¹⁸⁵ See generally Convention to Suppress the Slave Trade and Slavery (hereinafter: “Slavery Convention”); and Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery (hereinafter: “Supplementary Convention on the Abolition of Slavery”); see specifically Article 1 Slavery Convention: “For the purpose of the present Convention, the following definitions are agreed upon: (1) *Slavery is the status or condition of a person over whom any or all of the powers attaching to the right of ownership are exercised.* (2) The slave trade includes all acts involved in the capture, acquisition or disposal of a person with intent to reduce him to slavery; all acts involved in the acquisition of a slave with a view to selling or exchanging him; all acts of disposal by sale or exchange of a slave acquired with a view to being sold or exchanged, and, in general, every act of trade or transport in slaves.” (emphasis added);

¹⁸⁶ See generally Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (hereinafter: “Torture Convention”); see specifically Article 1 Torture Convention: “For the purposes of this Convention, the term “torture” means any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions.” (emphasis added); see also Article 5 UN Declaration of Human Rights: “No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment.” (emphasis added); Article 3 ECHR: “No one shall be subjected to torture or to inhuman or degrading treatment or punishment.” (emphasis added); Article 7 ICCPR: “No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment. In particular, no one shall be subjected without his free consent to medical or scientific experimentation.” (emphasis added)

biological nature of us as *homo sapiens* and the social nature of our human civilization. Given that our social life is ultimately formed by our biological life, the social can only function when the biological prerequisites of life, liberty and property are protected from force. As discussed in Section 3.2, Darwinian evolution, that universal law of biological nature, has selected for those individuals with the burning desire to fight for their survival when their lives, liberty and property are threatened. In other words, the reason we find these same rights throughout theory and practice is because they are natural. They are the laws of our societies not despite but because they are derived from nature.

Many societies have tried acting against these laws of nature and they have failed the test of time. They were simply unnatural. When a society allows for the widespread exercise of force against life, liberty and property, then this society will, in a best case scenario, be slowly outcompeted by a society which does protect these interests, because in this latter society, the non-zero-sum game nature of this society constantly creates new value. In a worst case scenario, such a society which allows for the widespread exercise of force against life, liberty and property, will become a completely zero-sum game society, wherein every bit of value needs to be extracted from someone else and thus, as a society, it turns into a death spiral of extraction. Laws cannot be arbitrary. Ultimately, they need to reflect our human nature.

In sum, this section has built on the findings of Section 3.2 on the laws of nature and has taken them to their logical conclusions; the laws of men. The laws of men are such that agreement is found on the mutual right to self-determination among participants to the agreement and this includes the prohibition of the use of force against life, liberty and property. Moreover, it has been argued that the reason why these interests and rights to life, liberty and property are found both in theory and practice, in political philosophy and in law, is because they are not coincidental, but rather, because they reflect laws derived from nature. In the next section, I will move from the laws of individual men to the laws of their collective expression as peoples.

3.4 On the Laws of States

At some point, these groups would naturally become too large to maintain peace and security without a central force which would protect the right to self-determination for the participants to the agreement through the prohibition of the use of force. Although these groups might have previously been able to self-correct transgressions of the agreement, as the groups of people

became larger and social interactions became more anonymous, there came a natural and logical need for a central force to enforce the agreement - a State. The *raison d'être* of the State is hence to preserve the *tranquillitas ordinis*, i.e., the State is the securer of the vital interests of the individual and of peace and security in a society. In order to do this, the State must assume a monopoly on the use of force with which it can act as an arbiter against transgressions on the prohibition on the use of force. A Leviathan is born. The Leviathan (“לֵוִיָּתָן”) of Hobbes receives its name from the mythical monster mentioned throughout the Tanakh.¹⁸⁷ It is fear in its absolute form and Hobbes imagines the monopolization of force by the State in its image.¹⁸⁸

Individuals living in the State therefore have to, through the (implicit) acceptance of the so-called social contract, accept the Leviathan’s monopoly on the use of force. In the Mishnah, one of the first written commentaries on the Oral Torah, one of the oldest justifications is given for this great force which needs to be embodied by the State. In the Ethics of Our Fathers, it says: “*Pray for the welfare of the government, for were it not for the fear of it, men would swallow one another alive*”.¹⁸⁹ Hobbes clearly echoes this sentiment when he states in Chapter XIII, Of The Natural Condition of Mankind, Out of Civil States that: “There Is Always Warre Of Every One Against Every One Hereby it is manifest, *that during the time men live without a common Power to keep them all in awe, they are in that condition which is called Warre; and such a warre, as is of every man, against every man.*”.¹⁹⁰ (emphasis added)

In order to take people out of this state of nature, people need to be kept ‘in awe’ by the awesome power of a State.¹⁹¹ Through the social contract they accept the monopoly on the use of force by the State to enforce the rules – notably the rules to protect the right to self-

¹⁸⁷ Book of Job 3:8, 40:15–41:26; Book of Amos 9:3, Book of Psalms 74:13–23, 104:26; Book of Isaiah 27:1.

¹⁸⁸ See e.g. Book of Job 41, at 12-34: “I will not fail to speak of Leviathan’s limbs, its strength and its graceful form. Who can strip off its outer coat? Who can penetrate its double coat of armor[b]? Who dares open the doors of its mouth, ringed about with fearsome teeth? Its back has[c] rows of shields tightly sealed together; each is so close to the next that no air can pass between. They are joined fast to one another; they cling together and cannot be parted. Its snorting throws out flashes of light; its eyes are like the rays of dawn. Flames stream from its mouth; sparks of fire shoot out. Smoke pours from its nostrils as from a boiling pot over burning reeds. Its breath sets coals ablaze, and flames dart from its mouth. Strength resides in its neck; dismay goes before it. The folds of its flesh are tightly joined; they are firm and immovable. Its chest is hard as rock, hard as a lower millstone. When it rises up, the mighty are terrified; they retreat before its thrashing. The sword that reaches it has no effect, nor does the spear or the dart or the javelin. Iron it treats like straw and bronze like rotten wood. Arrows do not make it flee; slingstones are like chaff to it. A club seems to it but a piece of straw; it laughs at the rattling of the lance. Its undersides are jagged potsherds, leaving a trail in the mud like a threshing sledge. It makes the depths churn like a boiling caldron and stirs up the sea like a pot of ointment. It leaves a glistening wake behind it; one would think the deep had white hair. Nothing on earth is its equal— a creature without fear. It looks down on all that are haughty; it is king over all that are proud.”

¹⁸⁹ See, e.g., Ethics of Our Fathers: Avot 3:2 Rabbi Chanina, deputy to the high priest (“*kohanim*”): “*Pray for the welfare of the government, for were it not for the fear of it, men would swallow one another alive.*”.

¹⁹⁰ See Hobbes, *Leviathan*, Chapter XIII.

¹⁹¹ See Hobbes, *Leviathan*, Chapter XIII.

determination through the protection of the rights to life, liberty and property. There are two main parts to this social contract with regards to peace and security. First, the individual has to accept that the State's use of force is legitimate *vis-à-vis* himself (vertical legitimacy).¹⁹² Second, the individual has to accept that he is no longer authorized to unilaterally protect his vital interests of life, liberty and property *vis-à-vis* other individuals (horizontal legitimacy).¹⁹³ The surrender of the individual's natural right to act unilaterally in the protection of his vital interests is the quintessential precondition for individuals to transcend the state of nature in which they lived prior to the State and its monopolization of the use of force.

However, the State never takes away the right to act in self-preservation completely.¹⁹⁴ Instead, nearly every domestic legal order, mindful of the fact that the State cannot always be capable of protecting (or may not always be willing to protect) the vital interests of the individual, allows the individual to use force to act in some sort of self-preservation.¹⁹⁵ Monopoly, in this sense, is a fiction used to facilitate academic discussions, but it should not be taken as a factual absolute. The State never completely monopolizes the use of (just) force and always leaves part of the natural right of people to act in self-preservation in the hands of the individuals themselves.¹⁹⁶ It is this remainder of one's natural right to act in self-preservation which is referred to in domestic law systems as 'self-defence'.¹⁹⁷ This right to act in self-defence can be found as legal rights in virtual every legal to one degree or another.¹⁹⁸ It has been acknowledged in so many domestic legal orders that it rightly qualifies as natural law.¹⁹⁹

This law of the right to self-defence is however broader than the mere declaration of a legal right to self-defence. Rather, nearly every domestic legal order, mindful of the fact that unilateralism ought to be restricted to a sufficient degree in order to be able to transcend the

¹⁹² See Hobbes, *Leviathan*, Chapter XIII; see also Locke, *Second Treatise of Government*, Chapter VIII, sect. 97: "And thus every man, by consenting with others to make one body politic under one government, puts himself under an obligation, to every one of that society, *to submit to the determination of the majority, and to be concluded by it [...]*," Chapter IX, sect. 128: "For in the state of nature, to omit the liberty he has of innocent delights, a man has two powers. The first is to do whatsoever he thinks fit for the preservation of himself [...]. The other power a man has in the state of nature, is the power to punish the crimes committed against that law. *Both these he gives up, when he joins in a private, if I may so call it, or particular politic society, and incorporates into any commonwealth, separate from the rest of mankind.*", Chapter IX, sect. 129-130: "The first power, viz. of doing whatsoever he thought for the preservation of himself, and the rest of mankind, he gives up to be regulated by laws made by the society [...]. Secondly, *The power of punishing he wholly gives up [...]*". (emphasis added)

¹⁹³ *Id.*

¹⁹⁴ See P. Haggemacher, *Self-Defence as a General Principle of Law and its Relation to War*, in A. Eyffinger, A. Stephens & S. Muller (Ed.), *Self-Defence as a Fundamental Principle*, p. 14-18 (2008).

¹⁹⁵ *Id.*

¹⁹⁶ *Id.*

¹⁹⁷ *Id.*

¹⁹⁸ *Id.*

¹⁹⁹ *Id.*

state of nature, connects this right to certain specific conditions and restrictions which can be also be found universally.²⁰⁰ Most legal orders connect the right to self-defence to some degree to the normative restraints of necessity, proportionality and immediacy.²⁰¹

As such, most domestic law systems exclude the right to act in pre-emptive or preventive self-defence because it is deemed unnecessary to punish mere intentions and ideas which have not yet resulted in (substantive) actions.²⁰² Broadly speaking, the temporal aspect of self-defence can be divided into four categories; *reactive self-defence* (self-defence in direct response to an attack against life, liberty or property and which has already struck),²⁰³ *interceptive self-defence* (self-defence in anticipation of an attack against life, liberty or property which is already underway, but which has not yet struck),²⁰⁴ *pre-emptive self-defence* (self-defence in anticipation of an attack against life, liberty and property which is not yet underway, but which is expected to be launched imminently due to active preparations)²⁰⁵ and *preventive self-defence* (self-defence in anticipation of an attack against life, liberty and property which has not yet been launched and is not yet imminent, but for which there exist general preparations).²⁰⁶ Generally speaking, most domestic law systems prohibit preventive- and most types of pre-emptive self-defence and only allow for reactive- and some types of interceptive self-defence.²⁰⁷ Given that a strong State can punish those who actually *engage* in use of force to a sufficient degree in order establish an effective deterrence, both through a special and a general prevention of (potential) aggressors, individuals no longer need to take such precautions. Dealing with non-immediate threats therefore ought to become the task of the State, whereas previously it would certainly behoove any individual to strangle any potential future aggression at birth. Indeed, throughout much of human history, the killing of babies and boys who might otherwise grow up to become hostile men has often been the more pragmatic course of action.

²⁰⁰ *Id.*

²⁰¹ *Id.*

²⁰² *Id.*

²⁰³ See e.g. T. Ruys, 'Armed Attack' and Article 51 of the UN Charter Evolutions in Customary Law and Practice, p. 253-254 (2010). Although these categories can not always be strictly separated and although many authors use different terms and different lines of separation when discussing self-defence, these categories provide a terminology which will help to comprehend the concept of the temporal aspect or *rationae temporis* of self-defence.

²⁰⁴ See Ruys, 'Armed Attack' and Article 51 of the UN Charter Evolutions in Customary Law and Practice, p. 253-254.

²⁰⁵ *Id.*

²⁰⁶ *Id.*

²⁰⁷ See Haggenmacher, *Self-Defence as a General Principle of Law and its Relation to War*, p. 14-18.

In addition to excluding the right to act in self-defence preventively and pre-emptively, most domestic law systems exclude the right to act punitively as well, due to such action being considered disproportionate to the threat faced.²⁰⁸ When the State has monopolized the use of force, this is certainly so. Prior to this monopolization however, harsh punitive self-defence would not necessarily be considered disproportionate to the aggression that is being punished, as it could be considered necessary to establish effective deterrence. After all, if an aggressor is only punished for the damage he has caused when he is caught by the victim, but can get away unpunished for the times he cannot be caught by the victim, then no effective deterrence for future aggression can be established. The State wields a lot more power to catch aggressors and can therefore change the cost/benefit analysis of a potential aggressor with less punishment. Punitive self-defence in this sense is a punishment not just for the damage when he is caught, but especially also for all the times when he is not. When the State does become the one tasked with the establishment of effective deterrence against the use of force, the individual no longer has the need to engage in such harsh punitive self-defence, because the enforcement improves. For the same reason as punitive self-defence is not allowed in most domestic law systems, most law systems also exclude the right to act after the threat has already passed. By then the action would be of a retaliatory nature and constitute revenge rather than immediate self-defence. Prior to the monopolization of the use of force by the State, vengeance would be deemed necessary in order to establish effective deterrence. If you're not the biggest and baddest on the block, then you're only inviting future aggression. *Nemo me impune lacessit*.

These normative restraints on the right to self-defence are so inextricably linked to the general notion of self-defence in domestic law systems that they are to be considered an addendum to the right to self-defence as a natural law.²⁰⁹

However, it must be noted that notions of necessity, proportionality and immediacy are also closely connected to how well the State performs in its principal task of protecting the individual's most vital interests – namely life, liberty and property.²¹⁰ After all, a prohibition on the use of force is only possible if this force is *effectively* monopolized in the hands of State organs. Otherwise, effective deterrence from the use of force is not established and the

²⁰⁸ *Id.*

²⁰⁹ *Id.*

²¹⁰ A. Eyffinger, *Self-Defence or the Meanderings of a Protean Principle*, in A. Eyffinger, A. Stephers & S. Muller (Ed.), *Self-Defence as a Fundamental Principle*, p. 115 (2008).

legitimacy of the State and its force comes into question. The State thus needs to maintain effective control over its sovereign spaces.²¹¹

Moreover and conversely, if the State were to provide no real effective protection of the individual's vital interests and fails to create the necessary effective deterrence, then it cannot simply be expected of the individual that he accepts grave threats to his life, liberty or property. The social contract is no suicide pact.²¹² The legitimacy of the State as the guarantor of the *tranquillitas ordinis* is not a black-or-white notion. Rather, many shades of grey exist and the normative restraints on self-defence as discussed above respond accordingly. In legal orders where effective deterrence and the monopolization of the use of force by the State is strong, there are stronger restraints on the right to self-defence. In legal orders where effective deterrence and the monopolization of the use of force by the State is weak, there are weaker restraints on the right to self-defence. In legal orders where effective deterrence and the monopolization of the use of force by the State is somewhere between strong and weak, the restraints on the right to self-defence are somewhere between strong and weak. In this sense, the monopolization of the use of force by the State and the normative restraints on the right to self-defence by the individual are communicating vessels.

This principle of the monopolization of the use of force by the State and the normative restraints on the use of force by the individual is famously demonstrated by the Texas 'trespassers will be shot on sight'- scenario. Given that, as the expression goes; 'Everything's bigger in Texas', this too is the case for estates. In the classic Texas scenario, the land owners live remotely from the major cities on large private estates where the arm of the law cannot always reach to provide effective deterrence to protect the individual's vital interests of life, liberty and property. Rather, it is the land owner himself who ultimately remains responsible for the protection of his vital interests. Therefore, (sometimes) he can be the sole sovereign on his land when the official sovereign cannot provide effective deterrence from aggression. He can 'take the law in his own hands', because until the State sovereign arrives, the individual is the sovereign. Especially in the olden days when there were no phones, let alone cyberspace, for all intents and purposes, the individual needn't expect the State to provide any protection whatsoever, despite formally being under its sovereignty. Moreover, what is important to note

²¹¹ It is this effective control over the sovereign space of cyberspace which is the topic of Chapters 4-6.

²¹² See Hobbes, *Leviathan*, Chapter XIV: "*a man is forbidden to do, that, which is destructive of his life, or taketh away the means of preserving the same; and to omit, that, by which he thinketh it may be best preserved.*" (emphasis added)

in this situation, is that the State generally *allows* for this type of action.²¹³ The State in these weaker legal orders is aware that it has greater limitations to its monopolization of the use of force than do most legal orders and the normative restraints on the right to self-defence therefore become more lenient corresponding to the degree of this limitation.²¹⁴ Therefore, particular types of self-preservation which are often forbidden in strong legal orders, can become legitimate in weaker legal orders, because of the communicating vessels of the prohibition on the use of force and the right to act in self-defence.²¹⁵ Trespassers will hence be shot on sight. Effective deterrence to threats against life, liberty and property is to be created by either the State or by the individual. If it is not by the one, then it is by the other.

This general notion, which can be defined as the conditionality of the surrender of parts of the individual's natural right to act unilaterally in self-preservation, upon the willingness and ability of the central authority to provide effective protection of the individual's most vital interests to life, liberty and property, is the second addendum to the right to self-defence as a natural law.²¹⁶

In sum, the right to act in self-defence has been accepted as deriving from the natural law to act in self-preservation. In order to transcend the state of nature, the State assumes a monopoly on the use of force pursuant to the social contract. This includes both the acceptance by the individual of horizontal- and vertical legitimacy of the State's use of force. It is hence the State which takes over the task of creating effective deterrence from and for the individual. Therefore, the right to use force in self-preservation is principally taken over by the State. However, due to the fact that the State cannot always provide effective deterrence against aggression against life, liberty and property, the State never takes away the right to use force to act in self-preservation completely. Rather, it strips the right to self-preservation down to the right to self-defence, which includes the normative restraints of necessity, proportionality and immediacy and prohibits preventive, pre-emptive and punitive self-defence. However, these normative restraints remain conditional upon the need for the individual to protect one's vital interests of life, liberty and property and to act in self-preservation when this is necessary. Generally speaking, the State takes away this necessity. When it fails to do so, the individual can reclaim the right to protect his vital interests of life, liberty and property. In Chapters 5 and

²¹³ See Eyffinger, *Self-Defence or the Meanderings of a Protean Principle*, p. 115.

²¹⁴ *Id.*

²¹⁵ *Id.*

²¹⁶ See Haggenmacher, *Self-Defence as a General Principle of Law and its Relation to War*, p. 14-18.

6 these rights to life, liberty and property and the principles discussed in this section will be connected to the domain of cyberspace. The next section will first take these findings on the monopolization of the use of force by the State and the remaining right to self-defence with its addenda of conditional normative restraints by the individual to the level of international relations.

3.5 On the Laws of the International Order

The previous sections have described the individual's right to self-defence as deriving from human nature's innate drive to act in its self-preservation and they have described how the State becomes tasked with (parts of) this protection through the social contract. Further, the right to self-defence has been described as a natural law to which two addenda exist. It has been explained that the *raison d'être* of the State is the protection of the vital interests of the individual – namely life, liberty and property - due to the assumption by the State of the monopoly on the use of force as derived from the drive of humans to act in self-preservation for the protection of these same interests. Hence, it is posited that through the monopolization of the use of force and the creation of the State, that an innate moral and legal duty is created for the State to protect the individual's vital interests. This implies that the State does not merely protect the individual's vital interests of life, liberty and property against other individuals living in that State, but that the State itself may and also must act in self-defence against external aggressors, *i.e.*, against other States or against non-State aggressors and that it must do so in the protection of its citizens and itself.

In order to explain the legitimacy of this right to self-defence for the State itself, the domestic analogy for international relations is commonly used. There are many different definitions and interpretations for the term 'domestic analogy', but for the purposes of this dissertation, I will put it here in its simplest grammatical interpretation; the domestic analogy for international relations is the idea that States relate to each other in international society in a manner analogous to the way that individuals do so in domestic society.

There are several justifications for the validity of using the domestic analogy to describe international relations and moral judgments about interstate behavior. As the previous section has set out, the *raison d'être* of a State is the protection of the vital interests of the individual of life, liberty and property. In this sense, the State's right to self-defence is inherent, because it is part of the social contract which is created between the individual and the State. It is inherently

inherited. This view, which reasons from a responsibility of the State, has some basis in history. Historically speaking, the primary task of the State has been to protect the *tranquillitas ordinis* for the individual, not merely between individuals in the State, but also and especially beyond the State, from external aggression. The legitimacy of any regime has depended on this, regardless of time and place. Even in the absence of the explicit consent of the governed through democratic elections, governments have recognized that the implicit consent of the governed depends on the protection of peace and security - within the State through the creation of law and order and especially also beyond the State through self-defence against external aggression. It is the primary task of any State. Failure to do so will inevitably result in a decrease in legitimacy and an eventual revolt or overthrow. Even though historically speaking, the rights to life, liberty and property were by no means as protected as they are today (they could perhaps best be described as mafia-esque protection rackets whereby the only protection provided was against an even more exploitative ruler) and even though there is much leeway before a State which is unable or unwilling to protect these vital interests faces revolt or overthrow (most States have treated their citizens as little more than tax cattle to be milked dry, but not to be slaughtered), ultimately speaking, the legitimacy and continued survival of any regime depends on a basic protection of life, liberty and property. This State's inheritance of individual interests, leads us to the second justification for the validity of using the domestic analogy for international relations. Given that, as we discussed in Section 3.2, the right to self-defence and the protection of life, liberty and property is *instinctu naturae* in humans, it is therefore also inborn in the State as States, according to this explanation, can be best understood to be 'human families'. This notion of (nation) States as being human families is heavily reflected in international law.²¹⁷ Walzer on the other hand, takes a somewhat different view to come to the same conclusion. In his view, the right to self-defence of the State does not merely derive from the protection of the individual or the collection of individuals, but also from the State's moral duty to protect the community which is created, formed and maintained by these individuals.²¹⁸ It is a claim to (property) rights to a common life of infrastructures, of common organization

²¹⁷ See, e.g., preamble ICCPR: "Considering that, in accordance with the principles proclaimed in the Charter of the United Nations, recognition of the inherent dignity and of the equal and inalienable rights of *all members of the human family* is the foundation of freedom, justice and peace in the world". (emphasis added); preamble ICESCR: "Considering that, in accordance with the principles proclaimed in the Charter of the United Nations, recognition of the inherent dignity and of the equal and inalienable rights of *all members of the human family* is the foundation of freedom, justice and peace in the world". (emphasis added)

²¹⁸ M. Walzer, *Just and Unjust Wars*, p. 53-54 (2006): "The moral standing of any particular state depends upon the reality of the common life it protects and the extent to which the sacrifices required by that protection are willingly accepted and thought worthwhile. If no common life exists, or if the state doesn't defend the common life that does exist, its own defense may have no moral justification. But most states do stand guard over the community of their citizens, at least to some degree: that is why we assume the justice of their defensive wars."

and of common community.²¹⁹ Consequently, Walzer does not merely look at the moment of the creation of the State and the subsequent innate desire for its self-preservation, but also at the State's development and its social institutions preceding and following the moment of the State's creation. (Chapters 5 and 6 deal with the creation of such common properties and infrastructures.) This view seems to bridge a gap between the previous three justifications for the domestic analogy and the fourth justification, which can be regarded as the moral opposite to the previous justifications. Whereas the previous three justifications for the right of self-defence for the State can be regarded as bottom-up approaches of legitimacy, this fourth view is called 'statism' and it is the theory that States attain a right to self-defence top-down and *sui generis* through their sovereign existence.²²⁰ Similar to the way in which individuals need to protect their vital interests for their self-preservation, so do States. The difference between statism and these other views is that statism is not reliant on the legitimacy provided by the people living in that State. This fourth justification, which according to Tésón is "conceptually and morally wrong in this traditional form and too extreme even in its more benign versions", is on the decline and arguably rightly so.²²¹ However, it is important for the domestic analogy to regard the State both as the representative body of the interests of its people and as an independent entity with its own innate desire for self-preservation which may sometimes be in conflict with the interests of individual people. The clearest example of this conflict is when the State has to sacrifice the lives of some of its soldiers to protect the lives of most of its civilians from aggression from within or from without. Self-defence is hence the *right* and the *must* of any State.

Regardless of the justification, these philosophers share common ground in their theories in that they agree that States attain their inherent right to self-defence in the international legal order analogous to the way that individuals attain their right to self-defence in domestic legal orders. And it is the correct view. The right to self-defence of the State should be closely connected to the protection of the State's vital interests as these interests too are natural. We have seen in Section 3.3 that the vital interests of the individual are life, liberty and property. Analogously, the vital interests which the State needs to defend ought to connect to the State's existence, freedom and property. It is hence unsurprising that the vital interests

²¹⁹ See generally *infra* Chapters 5 and 6, which deal with the creation of such common properties and infrastructures.

²²⁰ See F. Tésón, *A Philosophy of International Law* (1998), p. 40-41.

²²¹ See Tésón, *A Philosophy of International Law*, p. 39. The interests of the people should be the goal to pursue and the State the instrument to do so, not the other way around.

which the State needs to defend pursuant to international law and philosophy are its sovereign existence, political independence and territorial integrity, being, analogously and respectively, the collective expressions of life, liberty and property for the State.²²²

Sovereign existence in this sense refers to the concrete existence or survival of the State, whereas political independence and territorial integrity comprise this concrete existence”. *Political independence* refers to the freedom of decision-making or self-direction customarily demanded by state officials”. *Territorial integrity* refers to “the geographical extension of a state’s defined territory”.

Beyond protection of these interests in philosophy and theory by the most authoritative political philosophers, we also find these same interests protected as rights in law and practice in the most authoritative legal documents. The 1945 Charter of the United Nations, the foundational document of the most recent attempt to create an international legal order, states in article 1(1) that its primary purpose is “To maintain international peace and security”.²²³ In other words, the first-mentioned purpose of the UN Charter is to protect the *tranquillitas ordinis* in the international relations between States, analogous to how the primary purpose of domestic legal orders is to protect the *tranquillitas ordinis* in domestic relations between individual persons.

It should be noted here that the *tranquillitas* in international relations has historically been anything but *ordinis* and that it has been more akin to the state of nature in which individual people lived prior to the creation of the State.²²⁴ Unsurprisingly, the concepts of State sovereignty and Balance of Power have historically attributed States a right to use force as a

²²² See Walzer, *Just and Unjust Wars*, at 54-55: “The protection extends not only to the lives and liberties of individuals but also to their shared life and liberty, the independent community they have made, for which individuals are sometimes sacrificed. [...] And given a genuine “contract”[,][sic] it makes sense to say that territorial integrity and political sovereignty can be defended in exactly the same way as individual life and liberty. It might also be said that a people can defend its country in the same way as men and women can defend their homes, for the country is collectively as the homes are privately owned. The right to territory might be derived, that is, from the individual right to property. (emphasis added)

²²³ 1945 Charter of the United Nations (hereinafter: “UN Charter”), 1 UNTS XVI (1945), Article 1(1): “To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace.” (emphasis added).

²²⁴ See, e.g., Locke, *Second Treatise of Government*, Chapter II, sect. 14: “[...] all princes and rulers of independent governments all through the world, are in a state of nature”. (emphasis added)

means of furthering interests and as a means of redressing grievances, analogous to such rights for individuals in their respective state of nature.

This has however changed over time and in stages. The inception of the general inadmissibility of the use of force in international relations dates back to the beginning of the 20th century. The 1920 Covenant of the League of Nations was the first attempt to regulate the unilateral use of force through general prohibitions (as opposed to previous *jus in bello* prohibitions) by declaring that within the League of Nations, members accepted their obligations “not to resort to war”.²²⁵ Similarly, the 1928 International Treaty for the Renunciation of War as an Instrument of National Policy (Kellogg-Briand Pact) provided that members to the treaty “condemn recourse to war for the solution of international controversies”.²²⁶ States thus agreed not to use war as an instrument of national policy. In other words, they agreed not to use force for offensive purposes, but instead, only for defensive purposes. Such agreements imply respect for certain interests of other States.

However, World War II soon demonstrated that international laws and agreements, just as national laws and agreements, have little practical value without an effective means to enforce them. In the absence of an international Leviathan who can use force which is just, force will also be used when it unjust. Reservations from doing so will again be merely of a pragmatic nature.²²⁷ Additionally, during the 20th century, the term ‘war’ contained in both provisions came in disuse, thereby creating a grave loophole in the agreements. The 1945 Charter of the United Nations attempted to remedy these issues and represents the starting block for any current discussion on the international use of force. In article 2(4) of the UN Charter, we find the prohibition on the use of force within the international legal order. It reads: “All Members shall refrain in their international relations from the *threat or use of force* against the *territorial integrity* or *political independence* of any state, or in any other manner inconsistent with the Purposes of the United Nations.”.²²⁸ (emphasis added) The UN prohibition on the use of force thus broadened the prohibition on forceful action to a general prohibition on the use (or threat) of ‘force’ – instead of the more restrictive criteria of a declaration of war.

Additionally, the UN Charter also attempted to create an international Leviathan of sorts with the creation of the UN Security Council, which was created with the authority and the

²²⁵ Preamble, 1920 Covenant of the League of Nations, ATS 1 (1920).

²²⁶ 1928 International Treaty for the Renunciation of War as an Instrument of National Policy, 94 LNTS 57 (1928).

²²⁷ See *supra* Section 3.2.

²²⁸ Article 2(4) UN Charter.

legitimacy to enforce (especially egregious) transgressions to the prohibition on the use of force in order to maintain peace and security (*i.e. tranquillitas ordinis*).²²⁹

Article 2(4) UN Charter, which is now widely regarded as customary international law and even enjoys the status of *jus cogens*, also reflects an acknowledgment among the founders of the United Nations that in order to maintain the *tranquillitas ordinis* in international relations, it needs to protect the vital interests of the member States. Two of these vital interests are codified in article 2(4) of the UN Charter; territorial integrity and political independence – the international variants of property and liberty – which, as just discussed, comprise the concrete existence of sovereignty.

Just as we have seen in Section 3.3 on the protection of the interests of life, liberty and property, the recognition of the international variants of these interests as being vital to States has been enumerated throughout the international legal system – such as in the Definition of Aggression,²³⁰ the Declaration on Friendly Relations²³¹ and in the Declaration on the Non-Use of Force,²³² where special consideration is attributed to these rights.

Because of these vital interests - and analogous to the individual -, the State may, in principle, protect itself by any and all means, *i.e.*, he may use force pre-emptively, preventively, punitively or in any manner deemed necessary for self-preservation in the great chaos and arguably anarchical nature of international relations.²³³ As mentioned above, this has historically also been the case. With no international monopolization of the use of force through a super-State, let alone a police force or even an agreed upon sheriff with or without a posse,

²²⁹ Article 24 UN Charter: “In order to ensure prompt and effective action by the United Nations, *its Members confer on the Security Council primary responsibility for the maintenance of international peace and security, and agree that in carrying out its duties under this responsibility the Security Council acts on their behalf*. In discharging these duties the Security Council shall act in accordance with the Purposes and Principles of the United Nations.” (emphasis added); Article 25 UN Charter: “The Members of the United Nations *agree to accept and carry out the decisions of the Security Council* in accordance with the present Charter” (emphasis added), 39 UN Charter: “*The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security.*”. (emphasis added)

²³⁰ Article 1 Definition of Aggression: “Aggression is the use of armed force by a State against the *sovereignty, territorial integrity or political independence* of another State [...]”. (emphasis added)

²³¹ Principle f Declaration on Friendly Relations: “Each State enjoys the rights *inherent in full sovereignty* [...] The *territorial integrity and political independence* of the State are inviolable [...] Each State has the *right freely to choose and develop its political, social, economic and cultural systems*. (emphasis added)

²³² Declaration 1(7), Declaration on the Non-Use of Force: “States have the duty to abstain from armed intervention and all other forms of interference or attempted threats against the *personality of the State* or against its *political, economic and cultural elements*”. (emphasis added)

²³³ See *supra* Section 3.2.

none are responsible for the protection of these vital State interests but the States themselves. Unilateralism reigns supreme.

As we have seen in Section 3.4 however, the right to act unilaterally in the protection of one's vital interests can also be outsourced. Individuals have, often with great success, contracted out parts of their right to use force in the protection of their vital interests, in exchange for improved protection of these interests, provided for by the State. By giving up the unilateral protection of these interests, individuals in domestic societies have managed to transcend the state of nature in which they lived prior to the State. As described previously in this section, States have started to do the same since the beginning of the 20th century. Through the signing of the UN Charter, States have agreed to "confer on the Security Council primary responsibility for the maintenance of international peace and security" and to accept that "the Security Council acts on their behalf".²³⁴ Thereto, States agreed to "accept and carry out the decisions of the Security Council" and to "refrain in their international relations from the threat or use of force", corresponding, respectively, to the vertical and horizontal legitimacy which we have also seen in Section 3.4 on the obligations of the individual to the State pursuant to the social contract.²³⁵ Members of the international community have thus accepted to surrender their rights to unilateralism *vis-à-vis* each other and have accepted the authority of the UN Security Council *vis-à-vis* them – analogous to what has happened in domestic law systems.²³⁶ The UN Security Council has thereby become authorized and tasked to "determine the existence of any threat to the peace, breach of the peace, or act of aggression" and to "decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore *international peace and security*".²³⁷ (emphasis added)

States thus agreed to surrender certain elements of their natural right to act in self-preservation to the UN Security Council in order to transcend the state of nature of international relations in which they had previously lived and they have done so in a way which is analogous to the way this has happened in domestic law systems. Analogous to domestic law systems, in the international law system, it is the remainder of this right to use force in self-preservation which is called self-defence. In Article 51 UN Charter the right to self-defence is codified.²³⁸ It encapsulates the tension between the inherent, natural right of States to use force in acts of self-

²³⁴ Article 24(1) UN Charter.

²³⁵ Article 25 UN Charter.

²³⁶ See *supra* Section 3.4.

²³⁷ Article 39 UN Charter.

²³⁸ Article 51 UN Charter

preservation and the outsourcing of this right to the international Leviathan, the UN Security Council. It reads: “Nothing in the present Charter shall impair *the inherent right of individual or collective self-defence* if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security.”.²³⁹ (emphasis added) We see that the right to self-defence is being described as ‘inherent’. In other words, the right to self-defence is not considered to exist as a matter of legal right, constituted by the UN Charter, but as a matter of natural fact. It is not a legal right constituted, but a natural right recognized and codified by positive international law.

Conversely, the second part of the first sentence of Article 51 points us to the fact that, similar to the domestic community, the central governing body of the international community, the UN Security Council, not only attains the *right* to use force legitimately, but also the *duty* to do so – especially when in the protection of the sovereign existence, political independence and territorial integrity of its member States is at stake. The surrender of the States’ right to act unilaterally in self-preservation is thus also conditional upon the UN Security Council’s ability to establish the effective deterrence which can render future unilateralism unnecessary. Although passionate debates can be waged as to the degree to which the UN Security Council has managed to become an international Leviathan which has taken away the necessity for unilateralism, it is beyond any reasonable doubt that the international legal order ought to be characterized as a weaker legal order than are most advanced domestic legal orders. It would therefore certainly behoove States whose sovereign existence, political independence or territorial integrity are under threat of force, to monitor the UN Security Council’s performance closely. If the UN Security Council demonstrates that it is unable or unwilling to protect a State’s vital interests, then this State may take matters into his own hands and arguably also sooner than would be the case in a strong legal order. Moreover, as explained in Section 3.4, pursuant to the second addendum to the right to self-defence as natural law, such action could be considered legitimate as well. Just as the social contract in the domestic legal order is no suicide pact, neither is the UN Charter in the international legal order.

In sum, States inherit their ‘inherent’ right to self-defence analogous to and derived from the natural right to self-defence of the individuals whose interests it protects. This right is thus closely connected to the protection of the vital interests of life, liberty and property and consists, pursuant to the domestic analogy, respectively, of sovereign existence, political independence

²³⁹ Article 51 UN Charter.

and territorial integrity. In principle, States therefore also inherit an unlimited right to act unilaterally in self-preservation - especially when it comes to the protection of their sovereignty, political independence or territorial integrity. Analogous to individuals in domestic law systems however, a large part of this right has over time also been contracted out to the UN Security Council in the international law system through the UN Charter and subsequent developments. However, this surrender of one's right to act in self-preservation can also not equate a suicide-pact and thus remains, to some degree, conditional upon the Security Council's success in protecting the State's vital interests of sovereign existence, political independence and territorial integrity. Effective deterrence to threats against the life, liberty and property of the State is to be created by either the State or by the individual. If it is not by the one, then it is by the other.

3.6 Conclusion

This Chapter started with the poem *The Law of the Jungle* by Rudyard Kipling from his book *The Jungle Book*.²⁴⁰ In this book, Kipling uses a collection of stories with anthropomorphized animals to teach moral lessons. In the specific poem included here, Kipling teaches the rules of a pack of wolves. Such laws from nature have formed the basis for this chapter.

In Section 3.2, I started with the laws of nature. In nature, every life form acts according to its perceived self-interest in order to survive and to reproduce. Doing so is the *conditio sine qua non* for its continued existence and reproductive success in an environment where there is competition for scarce resources - such as food and reproductive opportunities. In this competition, the individual naturally and logically bears the ultimate responsibility for his self-preservation and may do so in any way necessary including through the use of force. Because of this, in the state of nature man must be wolf to man.

In Section 3.3, I have explained how the laws of nature, naturally and logically lead to the laws of men. Given that the war of all against all in the state of nature makes "the life of man, solitary, poor, nasty, brutish, and short,"²⁴¹ there is good reason to form agreements with other men on a mutual right to self-determination and thereto, to prohibit the use force of force against the life, liberty and property of participations to the agreement. In this section, I have also explained why I believe that the reason why these interests and rights to life, liberty and

²⁴⁰ R. Kipling, *The Jungle Book* (1894), *The Law of the Jungle*.

²⁴¹ See Hobbes, *Leviathan*, Chapter XIII.

property are found both in theory and practice, in political philosophy and in law, is because they are not coincidental social rules, but rather, that it is because they reflect laws derived from our biological nature.

In Section 3.4, I have explained how the laws of men and the laws of peoples, naturally and logically lead to the laws of States. As groups of people become larger, the increasingly complex and anonymous nature of their societies requires a monopolization on the use of force in order to create effective deterrence against potential transgressors of the agreements on the mutual right to self-determination and the prohibition on the use of force against life, liberty and property. Thereto, individuals living in the State agree, pursuant to the social contract, to transfer part of their natural right to act in self-preservation over to the State. More specifically, they agree to surrender their right to act in preventive, pre-emptive and punitive self-defence. The individual has to accept that the State's use of force is legitimate *vis-à-vis* himself and that he is no longer authorized to unilaterally protect his vital interests of life, liberty and property *vis-à-vis* other individuals. However, the State, mindful of the fact that it cannot create effective deterrence against aggression everywhere, all the time, leaves part of the natural right to act in self-preservation in the hands of the individual. It is the remainder of this natural right to act in self-preservation which we commonly refer to as the right to self-defence and it includes the normative restraints of necessity, proportionality and immediacy. However, these normative restraints remain conditional upon the degree to which the State can create effectiveness deterrence against transgressors of the agreements on the mutual right to self-determination and the prohibition on the use of force against life, liberty and property. Effective deterrence to threats against life, liberty and property is to be created by either the State or by the individual. If it is not by the one, then it is by the other.

In Section 3.5, I have explained how the laws of States, naturally and logically lead to the laws of the international order. As individual States become tasked with securing the *tranquillitas ordinis* domestically, they must also secure this domestic *tranquillitas ordinis* in the sphere of international relations. The State therefore has an inherent right and duty to use force in acts of self-preservation, analogous to the way that individuals have this right in the state of nature. Because the State has inherited these rights from the individuals living in the State, the interests which the State has a right to protect are the national, collective variants of life, liberty and property, namely, respectively, sovereign existence, political independence and territorial integrity. Additionally, similar to the way that individuals have contracted out parts of their right to act in self-preservation through the use of force to protect their life, liberty and property

to their respective States, so too have States done so in the international legal order. Throughout the 20th century States have contracted out parts of their inherent right to use force in acts of self-preservation through the use of force to protect their sovereign existence, political independence and territorial integrity to the UN Security Council. However, just as is the case with domestic law systems, this transfer of power remains (to some degree) conditional upon the willingness and ability of the UN Security Council to protect States' interests of sovereign existence, political independence and territorial integrity. Effective deterrence to threats against sovereign existence, political independence and territorial integrity is to be created by either the State or by the individual. If it is not by the one, then it is by the other.

Throughout this chapter, I have tried to argue that many parts of the systems of social organization through which we try to regulate actions of the members of our national and international societies, are in fact natural. That is, they are ultimately derived from our human biological nature. I posit therefore that it is possible to draw a line of logical, natural steps from the human nature with which we are all born to the UN Security Council Chamber in New York City at 760 United Nations Plaza, Manhattan, New York City, United States of America.

In the next chapters, I will apply these findings to the domain of cyberspace. I will argue that the story of our natural steps is not finished here, at the level of the international legal order, in this chapter. Rather, our story continues in the information age with new interpretations of what it means to protect people's lives, liberty and property, as well as their collective variants of sovereign existence, political independence and territorial integrity.

In Chapters 5 and 6, I will deal with these questions specifically. In Chapter 5 I will argue that the concept of territorial integrity needs to be broadened to not just include physical space, but also that it must include the protection of the parts of cyberspace with which one makes a living in the Information Age. The protection of intellectual property - such as technologies, techniques - needs to be included in the definition of territorial integrity pursuant to article 2(4) UN Charter and large-scale theft of intellectual property needs to be defended against with claims of sovereignty. In Chapter 6, I will argue that technology is a *condition sine qua non* for Mankind to survive. I will use an anatomy analogy to argue that critical infrastructures of energy, matter and information are to the State body what the lungs, arteries and brain are to the human body. Durable disruption of these critical infrastructures thus are therefore threats to the sovereign existence of a State as well.

The next chapter, Chapter 4, will first deal with effective control over cyberspace. It will address the so-called attribution problem in cyberspace and argue that, contrary to the high seas, effective control can in fact be exercised by States over cyberspace.

I'll leave this chapter with another quote from *The Law of the Jungle* by Rudyard Kipling:

*“Now these are the Laws of the Jungle, and many and mighty are they;
But the head and the hoof of the Law and the haunch and the hump is — Obey!”*²⁴²

²⁴² R. Kipling, *The Jungle Book* (1894), *The Law of the Jungle*.