# King R4 – 1NC v Harker DS

## 1

#### Interpretation: Appropriation refers to sovereign claims of land.

Melissa J. **Durkee 19**, J. Alton Hosch Associate Professor of Law, University of Georgia, "Interstitial Space Law," Washington University Law Review 97, no. 2 423-482

Those answering this question in the affirmative have access to a strong textual argument. Article II of the Outer Space Treaty specifically references "national" **appropriation**.17 9 The context surrounding that appears to confirm that the prohibition of "national" appropriation is directed at nations, as only a nation could have a legitimate "claim of sovereignty." 180 Moreover, "occupation" refers to old international legal doctrines that once allowed nations to claim territory based on occupation. The historical context within which the treaty was drafted supports this position, as the concern of the time was colonization, not commercial use of space resources. As for private parties, they are specifically anticipated by the treaty: **Article VI states that States Parties bear international responsibility for activities by "non-governmental entities" as well as governmental agencies**.' 8 1 The fact that they are anticipated by the treaty but not included in the Article II prohibition on appropriation suggests that the treaty intended to prohibit only national appropriation of outer space resources.18 2 Those claiming that the treaty prohibits both national appropriation and appropriation by private parties can marshal their own textual argument. Article VI defines "national activities in outer space" to include both "activities . .. carried on by governmental agencies" and those carried on by "non-governmental entities." 8 3 This definition of "national" must inform Article II's prohibition on "national" appropriation and thus extend to a nation's citizens **and commercial entities** as well as governmental activities. Moreover, a contrary interpretation defies logic: **if nations themselves may not claim property rights to outer space objects, they have no power to confer those rights on their nationals.**184

#### Violation: they only defend asteroid mining which is extraction – those are distinct – prefer rigorous legal analysis.

Wrench 19 – John grew up outside of Ithaca, New York, and received his law degree from the Case Western Reserve University School of Law in 2019. During law school, he served as editor in chief of the Case Western Reserve Journal of International Law and was a member of the Federalist Society. John interned in his law school’s First Amendment Litigation Clinic and was a judicial extern to the Honorable Paul E. Davison in the Southern District of New York. John graduated from Pace University in 2015 with a Bachelor of Arts in Philosophy and Religious Studies. 2019. [Case Western Reserve Journal of International Law, “ Non-Appropriation, No Problem: The Outer Space Treaty Is Ready for Asteroid Mining,” <https://scholarlycommons.law.case.edu/cgi/viewcontent.cgi?article=2546&context=jil>] Justin

Secondly, even if nations, businesses, and individuals are equally bound by the non-appropriation principle, the scope of that restriction is not entirely clear from the text of Article II.59 It is unlikely, however, that the non-appropriation principle is an absolute ban on the ownership of resources extracted in outer space.

An interpretation of Article II supporting a blanket ban on resource ownership is unwarranted by the text of the OST and illfounded on account of the international community’s common practices. Scholars have noted that the international community has never questioned whether scientific samples harvested from celestial bodies belong to the extracting nation.60 Furthermore, space-faring members of the international community rejected the Moon Treaty precisely because it prohibited all forms of ownership in resources extracted from celestial bodies.61 The space-faring nations’ support for the OST, coupled with their rejection of an alternative set of rules governing extracted resources, is at the very least an indication of what those nations believe the non-appropriation principle to stand for.

It is equally improbable that the international community drafted the non-appropriation principle to be merely idealistic rhetoric. The OST leaves no room for interpretations to squirm out from under its ban on sovereign claims of land.62 The following section illustrates, however, that the distinction between sovereign ownership of land, and the vestment of property rights in resources extracted from that land, is nothing new.

II. Legal Regimes Distinguishing Resource Extraction from Appropriation

Although the OST does not provide a comprehensive guideline for resource extraction in outer space, its foundational logic provides a workable distinction between ownership and use. This part explores three property regimes developed under the same fundamental constraints as the non-appropriation principle: the United Nations Convention on the Law of the Sea (“UNCLOS”), the Antarctica Treaty System, and the prior appropriation doctrine as applied in United States water law.63 Under each regime, parties may establish some form of ownership in extracted resources despite being restricted from claiming sovereignty over the underlying land.

Each section includes a brief discussion of the property regime’s history, its major traits and their relationship to the overarching characteristics of the non-appropriation principle. This part further describes how each property regime fits within the non-appropriation principle’s prohibition on claims to land, while prohibiting waste, separating land ownership from rights to extracted resources, enforcing liability for destruction or damage, and establishing a simple regulatory system to manage claims.

A. The Law(s) of the Sea: UNCLOS and the Seabed Act

International and national maritime laws addressing resource extraction deal with many of the same obstacles present in outer space. Like outer space, “[t]he seabed is rich in minerals…[c]ollecting and mining these minerals is expensive and requires sophisticated technology capable of reaching the great depths.”64 Additionally, the international regulatory regime created to address seabed mining contemplates widely applicable issues including the “protection and preservation of the marine environment,” “promot[ing] the peaceful uses of the seas and oceans,” and the “efficient utilization” of the resources therein.65 Although international law forms the backbone of seabed mining regulations, individual nations have concurrently developed their own regulations.

The foremost international maritime law is the United Nations Convention on the Law of the Sea (“UNCLOS”).66 The current iteration of UNCLOS came into force in 1982, replacing decades of international treaties that had not addressed seabed mining.67 The 1982 UNCLOS established the International Seabed Authority (“ISA”), a body responsible for managing seabed mining through regulations and licensing.68 UNCLOS further established a dispute resolution system through the Seabed Disputes Chamber of the International Tribunal.69

The United States found some features of the 1982 UNCLOS objectionable. Originally, the ISA was empowered to create an entity called the “Enterprise”, which would conduct mining operations for the benefit of developing countries alongside private mining operations.70 Under this agreement, private businesses were compelled to provide the Enterprise with the location of discovered minerals and the technology necessary to extract them, all in addition to the funding from member states.71 Some of these requirements proved controversial.

Several developed nations subsequently rejected UNCLOS and signed the “Provisional Understanding Regarding Deep Seabed Matters” (“The Provisional Understanding”) in 1984.72 The Provisional Understanding established “…procedures to follow in order to avoid overlapping claims to seabed sites,” while encouraging reciprocal recognition of other party’s claims.73 The Group of 77—a coalition of developing countries—and the ISA, criticized the Provisional Understanding on the grounds that it established an illegal regime.74 As one critic concedes, however, the Provisional Understanding is probably legal because it “…neither claims sovereignty or ownership…nor grants exclusive rights…” to seabed areas.75

UNCLOS was renegotiated in 1994, in part due to the changes brought about by the end of the Cold War and decreased focus on deep-seabed mining.76 Among the changes, it secured permanent seats on the ISA Council for the United States and Russia,77 created a Finance Committee consisting of the five parties with the largest financial contributions,78 removed mandatory funding of the Enterprise,79 made technology-sharing optional,80 and made development plans a prerequisite for granting permits for resource mining.81 Despite these changes, the United States “remains the only major seafaring nation” that has not ratified 1994 Agreement.82

The United States’ disagreements with the 1982 UNCLOS led to the creation of an interim national law called the Deep Seabed Hard Mineral Resources Act (“Seabed Act”).83 While the Seabed Act is intended as a temporary regime, it acknowledges that a functional international regime may take some time to develop.84 Under the Seabed Act, companies are required to obtain licenses and permits to explore and extract, both of which expire after a period of years.85

The United States has not entirely abandoned UNCLOS. Addressing recent conflicts in the South China Sea, President Trump called for “…claimants to clarify and comport their maritime claims in accordance with the international law of the sea as reflected in the 1982 United Nations Convention on the Law of the Sea…”86 Additionally, several United States presidents have supported ratification of UNCLOS since the 1994 Agreement.87 And, although President Reagan was dissatisfied with the 1982 UNCLOS, changes incorporated into the 1994 Agreement have addressed those complaints.88

The laws regulating resource extraction in the sea share major traits with the non-appropriation principle, as UNCLOS and the Seabed Act allow parties to establish property rights in extracted resources without violating the non-appropriation principle. First, under both regimes, parties extract minerals without laying claim to underlying land.89 Secondly, UNCLOS’s requirement for development plans and the Seabed Act’s licensing-system place some pressure on parties to extract resources or forfeit their rights.90 This feature prevents parties from sleeping on a license, thereby encouraging productive use of land. In other words, the licensing system reduces waste and protects against de facto ownership of land resulting from inordinately long periods of occupation. The United States, by adopting both traits from UNCLOS, and voicing its willingness to enter into a robust international regime for resource extraction, indicates support for an international regime reflecting those features.

Even if the United States’ framework under the Seabed Act were adopted as a model for resource extraction in space, it comports with the non-appropriation principle. The United States’ conceptual distinction between land ownership and resource extraction is a gauge for whether it would accept a similar arrangement for space law.91 And, while the United States is only one of many members of the international community, it is difficult to conceive of a successful international agreement without the involvement of the major spacefaring nations.

B. The Antarctic Treaty System

The Antarctic Treaty92 and the subsequent agreements collectively regulating the peaceful use of Antarctica form the “Antarctic Treaty System.”93 The first of these treaties was created in 1959 to preserve environmental integrity and prohibit violence in the region.94 Antarctica’s size, impenetrableness, and vast resource stores have made it a reoccurring model for outer space law.95 While the Antarctic Treaty System shares key features with the law of outer space, its development and subsequent legal regime is distinctive.

Several nations made property claims to Antarctica before the first Antarctic Treaty.96 Parties suspended those claims, however, in effort to moderate claims and prevent Antarctica from becoming a site of violent competition.97 Although the 1959 Antarctic Treaty does not directly address resource-mining, parties “…understood that the question of how Antarctic mineral activity was to be regulated…would not go away.”98

The international community originally attempted to establish a legal regime for Antarctica that distinguished between sovereign claims and resource extraction. The Convention on the Regulation of Antarctic Mineral Resource Act (“CRAMRA”) was the first venture to provide a foundation for an international property regime in Antarctica.99 CRAMRA defined, as a means to regulate resource mining, three categories of resource-related activity: “prospecting”, “exploration”, and “development.”100 The Regulatory Committee, one of several institutions established under CRAMRA, was responsible for considering permit applications for the “exploration and development” of mineral resources.101 Unlike exploration and development, prospecting does not require the authorization of any of the institutions.102

CRAMRA’s definition of “prospecting” is crucial for understanding the role of property rights under the regime. Prospecting includes the investigation of areas for potential exploration or development using a variety of sensing technologies.103 Dredging, excavation, or drilling, however, are defined as “prospecting” only if used for the purpose of obtaining small-scale samples or drilling less than 25 metres.104 Furthermore, activities defined as “prospecting” do not confer property rights to mineral resources.105 As a result, an operator gains property rights to mineral resources “…at the exact point where prospecting activities cease to be prospecting activities and become exploration or development activities.”106

The six years of negotiation that culminated in CRAMRA107 were not ultimately fruitful. Under its terms, CRAMRA could not enter into force unless all states with territorial claims to Antarctica were parties to it.108 Australia and France, while supportive of CRAMRA during negotiations, stated in 1989 that they would not ratify the Convention.109 Consequently, no nations have ratified CRAMRA.110

Antarctic resource extraction is currently regulated under the Protocol on Environmental Protection to the Antarctic Treaty, also known as the “Madrid Protocol”.111 Concluded in 1991, the Madrid Protocol prohibits “…[a]ny activity relating to mineral resources, other than scientific research…”112 Parties to the Madrid Protocol are able to reconsider the ban on commercial resource mining in 2048 and have reaffirmed the moratorium as recently as 2016.113

Although it was not ultimately adopted, CRAMRA’s negotiation provides insight into the international community’s willingness to create a resource extraction regime starting from a premise that ownership and use are distinct. Although CRAMRA permitted nations to extract resources, extraction explicitly could not amount to ownership of the underlying land.114 From that premise, CRAMRA does not grant property rights to parties who have merely used sensing technologies on the land, requiring more significant labor through activities like drilling or dredging.115

While the Madrid Protocol removes commercial resource extraction as an option, it allows nations to extract scientific samples without requiring—or permitting—claims of sovereignty.116 Because the Madrid Protocol “neither modif[ies] nor amends” the framework laid out by the Antarctic Treaty,117 extraction—whether scientific or commercial—remains separate from the ownership of underlying land. While the international community chose to restrict commercial extraction in Antarctica, that arrangement is a result of environmental concerns and not the failure to develop a property regime.118 CRAMRA’s successful illustration of a property regime remains instructive for the international community as it develops finer points of space law.

C. The Prior Appropriation Doctrine

The prior appropriation doctrine is a system developed in the American West to simplify miners’ water claims, granting rights to use the water to whoever made beneficial use of it first.119 The prior appropriation doctrine is useful for analyzing the law of outer space in both functional and abstract ways. First, scientists expect that water will be necessary for creating fuel and breathable air in outer space.120 Secondly, the prior appropriation doctrine evolved to resolve various claims in the water-scarce American West.121 The prior appropriation doctrine developed against the backdrop of commercial/private tension, embodies deeply-rooted American ethical assumptions, and contemplates the “public ownership” of underlying land.122 The prior appropriation doctrine is also “a rule of scarcity, not plenty,” and is therefore concerned with managing limited resources.123 These features of the doctrine make it a useful comparison to the demands of outer space resource extraction. Most importantly, the prior appropriation doctrine has resulted in an intuitive set of rules distinguishing between ownership and productive use.

The prior appropriation doctrine grew out of the chaos and grit that embodied the mining rush to the Western United States.124 The unpredictable availability of water, combined with the need for a simple adjudicative system, led early miners and farmers to adopt an “intuitive common sense” system of rules to resolve water claims.125 Essentially, the first claimant to make actual beneficial use of the water has senior rights to later users.126 Claimants do not own the land, however, but rather the right to use the water.127 Consequently, claimants may transfer their rights to the use but the public ultimately owns the water.128 Each of these features is explored below.

Central to the prior appropriation doctrine, and exemplified in Colorado’s constitution, is that water is a publicly owned resource.129 This concept stands in contrast to the idea that ownership of land is tied to ownership of the land’s water.130 The prior appropriation doctrine severs those concepts from one another, justifying citizens’ right to appropriate water while nullifying riparian claims.131 This feature is a doctrinal cornerstone of the prior appropriation system, as it distributes ultimate decision-making authority to the public while protecting valid claims.

Not all claimants establish or retain valid claims to use diverted water. Prior appropriation requires a claimant to make actual beneficial use of the water to obtain and retain their right to continue that use.132 In the context of the doctrine’s development, this stipulation prevented vast, speculative hoarding of property for the purpose of a later sale.133 This emphasis on “antispeculation” is derived from the era’s intensely anti-monopoly sentiment, favoring the distribution of water rights to those who could make actual use of the land.134 Therefore, claimants must define the location and expected scope of their use to establish or transfer rights.135

Parties who establish valid claims are protected against other future users who seek to use the same water at the earlier claimant’s detriment. Parties who make actual beneficial use of water have “seniority” over later claimants who use the water for similar purposes.136 In this system of senior and junior claimants, the latter must yield their use to senior claimants in times of water scarcity.137 Although this arrangement protects senior claimants from losing their use in times of scarcity, one scholar notes that claims often avoid their seniority.138 Furthermore, some states simply prohibit senior claimants from enforcing their priority over junior claimants when doing so would be futile.139 Claimants may actually benefit from avoiding enforcement, especially when enforcement is sought solely to prove seniority at the expense of junior claimants.140

Because prior appropriation separates the ownership of land from rights to beneficial use of water, claimants can freely transfer their validly established water rights.141 The technology claimants use to divert water for “out-of-stream” uses, like mining and agriculture, helps make the use “measurable and enforceable,” and therefore identifiable for transfer.142 Although transfers require new users to satisfy the actual beneficial-use requirement, the arrangement is flexible enough to facilitate the temporary transfer of use rights.143 The prior appropriation’s system of senior and junior claimants is enforced and regulated by a centralized authority. Acting in a “trusteeship role,” the government is responsible for enforcing validly established water rights.144 Although enforcement is sometimes avoided, as noted above, the value of a senior claim is necessarily dependent on the enforcement of those rights, especially when water is in short supply.145 In addition to adjudicating claims, the government is responsible for the “conservation of the public’s water resources.”146 Here, the implications of the “public ownership” concept is significant:

…[T]he state assumed a trusteeship role to administer the waters of the state for the benefit of the public. As such, it became responsible not only for minimal administrative functions but also for administration of the kind a trustee owes to the beneficiary of the trust. Its responsibilities include, first and foremost, the conservation of the estate and avoidance of waste; second, the promotion of beneficial use by assisting the appropriator in achieving use objectives to the maximum extent feasible; third, the representation of beneficiaries in a parens patriae capacity and maintaining the use regimen on the river system; and fourth, the promotion of efficiency and prudence of the kind expected of a trustee.147

The prior appropriation doctrine serves as a unique example for space law because of how it conceptualizes land ownership. Underlying land is available for use not because it is “unowned,” but because it is owned by a community who has the right to make productive use of it.148 Because the community owns the land, claimants have an obligation to use the land properly and the government is responsible for stewardship.149 This framing fits neatly with proponents of the idea that outer space is collectively “owned” by the international community. Regardless, stewardship and government ownership do not necessarily displace the potential for productive use.

Parties do not violate the non-appropriation principle simply by extracting—or as here, diverting—resources from the land. At no point does extraction equate to a sovereign claim over the land. In instances where non-productive use or the like violates those principles, property rights disappear. Furthermore, the OST encourages the idea that outer space is to be used to benefit the broader international community.150 The prior appropriation doctrine illustrates that parties can establish and transfer robust property rights in resources independent from land-ownership, while promoting beneficial use

#### Standards:

#### 1] Precision – non-topical affs violate tournament rules so the judge doesn’t have the jurisdiction to vote on them and it controls the internal to pragmatic offense in a question of models because it decks predictable stasis.

#### 2] Limits – allowing extraction to equate to sovereign claims explodes limits by shifting the debate away from sovereign claims to celestial bodies to permutations of parts of celestial bodies that companies could extract – leads to unbeatable affs that just ban extraction of one resource which the neg can’t ever predict. Forcing the affirmative to defend sovereign claims to celestial bodies is net better.

#### 3] TVA – defend an aff that bans sovereign claims to celestial bodies – solves your offense since you still get property rights fight offense.

#### Fairness is a voter – it’s a gateway issue to the ballot and every argument assumes the judges evaluates fairly.

#### Drop the debater to deter future abuse and since substance is skewed.

#### CI – Reasonability is arbitrary and we don’t know the brightline while prepping. Collapses since it uses an offense/defense paradigm to win it.

#### No RVIs- A] Illogical- you don’t win for being fair B] Encourages baiting theory which proliferates abuse C] Chills checking abuse for fear of the RVI

## 2

#### Interp: If the aff defends a restriction on private space mining they must specify the extent of that restriction, which entities they actually restrict, and which mining activities they reduce or ban in a delineated text in the 1AC.

#### Restrict is a vague term – lack of specification is considered legally vague.

Dynia 9 Philip A Dynia 2009 "Vagueness" (Philip A. Dynia is an Associate Professor in the Political Science Department of Loyola University New Orleans. He teaches constitutional law and judicial process as well as specialized courses on the Bill of Rights and the First Amendment.)//Elmer

Court has shown three reasons vague statutes are unconstitutional A fundamental explication of the modern Supreme Court’s concerns regarding overly vague statutes is found in Grayned v. City of Rockford (1972). The Court upheld a city ordinance restricting any “noise or diversion” that would disrupt activities at a public school against claims of vagueness. Because Rockford’s ordinance was aimed at disruptive speech and was grounded in the interest of ensuring the order needed for a proper education, the Court found no constitutional violation. But the Court did suggest three reasons why overly vague statutes are unconstitutional. First, due process requires that a law provide fair warning and provides a “persons of ordinary intelligence a reasonable opportunity to know what is prohibited, so that he may act accordingly.” Second, the law must provide “explicit standards” to law enforcement officials, judges, and juries so as to avoid “arbitrary and discriminatory application.” Third, a vague statute can “inhibit the exercise” of First Amendment freedoms and may cause speakers to “steer far wider of the unlawful zone . . . than if the boundaries of the forbidden areas were clearly marked.”

#### Violation: they don’t

#### Negate for stable ground — restrict can mean anything from regulating forms of mining to a complete ban, and it’s unclear which specific mining operations/ types are or aren’t eliminated based on the extent of the restriction – that decks predictable neg ground cuz they can delink from disads by saying the affs restriction doesn’t completely end whatever the link’s about – we lose access to Das about particular asteroids, types of Asteroid Mining, AND the scale of which they decrease.

#### Presumption – private entities will interpret restrict as narrowly as possible – also splits multilat cuz different countries can restrict differently. If they fiat anything other than the plan that’s a voter for extra t – allows affirmatives to add on infinite planks to spike out of neg offense.

## 3

#### Behold the image of the disgusting disabled child, which causes one to wince in the face of egoistic empathy. This is self-reflection, a process constitutive of the psyche that results in the disability drive, the culmination of primary pity where the non-disabled subject embodies itself in the position of the disabled object, and secondary pity, which portrays the ego’s overcompensation to regain its position and pushes a desire from lack for the eradication of disability.

**Mollow 15** Anna (2015): The Disability Drive, A dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of Philosophy in English in the Graduate Division of the University of California, Berkeley Committee in charge: Professor Kent Puckett, Chair Professor Celeste G. Langan Professor Melinda Y. Chen Spring 2015 <https://digitalassets.lib.berkeley.edu/etd/ucb/text/Mollow_berkeley_0028E_15181.pdf> SJCP//JG

A Tale of Two Pities “Piss on pity,” declares a well-known disability activist bumper sticker. A more polite companion to this tag, the slogan “No pity” is a rallying cry of the disability rights movement.119 For disability studies, a field that since its inception has vigorously resisted the imposition of pity upon disabled people, Tiny Tim is anathema. Understandably so: every year, the image of Tiny Tim is used to drum up pity for disabled people; the widespread circulation of this affect, disability scholars have compellingly argued, does not alleviate the social barriers that we face but instead reinforces our oppression. Indispensable as this disability studies analysis is, it leaves some important questions about pity unanswered. For example: if, as is commonly said, “No one wants to be pitied,” then why is this so? And also, if nobody wants to be pitied, who, if anyone, wants to feel pity? At first glance, the answer to the latter question might seem to be “everyone.” Certainly, multitudes of moviegoers appear to enjoy our culture’s annual recitations of Tiny Tim’s pity inducing tale. If it can be fun to perform pity, perhaps this is because pity gives a boost to the ego of the pitying person. “You are broken, and I am whole,” the pitier says to the one who is pitied. “I look down on you because you suffer.” Naturally, disabled people resist performing this service for the nondisabled. “Spare us your pity,” we say, because pity is felt to be demeaning. 73 Yet an incoherence structures this familiar account of pity: if pity fortifies the ego of the subject who feels it, then why do people so often resist feeling pity? Some folks get pissed when they are prodded to pity. “Your appeals to pity won’t work,” they say. “I have no pity for you.” This is the attitude that Scrooge takes toward Tiny Tim. It’s also the stance that Edelman invites queers to take in relation to the Child—and not only to the Child per se, but also to anyone who calls for a performance of pity. Edelman argues that compassion (which, of course, is a close relative of pity) is fundamentally narcissistic (73). When we call ourselves compassionate, we think we’re feeling for the other; but, Edelman contends, we’re really only feeling for ourselves (83). That is, compassion involves projecting one’s own ego onto the object of one’s compassion. In this schema, the pitied person is used as a vehicle for the pitier to feel sorry for his or her own self. But in calling compassion a cover for narcissism, Edelman may inadvertently point to a connection between compassion and the drive. Freud’s theorization of narcissism, which is a precursor to his idea of the death drive, suggests that although some forms of narcissism can bolster the ego, other forms can do just the opposite. “On Narcissism” posits a distinction between what Freud calls “primary” and “secondary” narcissism; this distinction provides the basis for a contrast that I wish to draw between what could be called primary and secondary pity. To elucidate these two pities, let us look at the tale that Freud tells about two narcissisms. The story begins, as many Freudian narratives do, with the image of a child at its mother’s breast. Freud gives the name “primary narcissism” to the perfect autoerotic pleasure in which the child luxuriates. This pleasure takes place in the absence of a stable self, as the child does not yet conceive of itself as a distinct entity, undifferentiated from its external environment (87-88). It’s the best of times, but it can’t last: the child’s primary narcissism, Freud recounts, is exposed to numerous “disturbances,” ranging from the castration complex (in which boys fear losing the penis and girls, Freud assumes, wish that they had one) to parental discipline and criticism.120 But still, we keep seeking that lost, best time: because humans are “incapable of giving up a satisfaction” that we have “once enjoyed,” we continually try to return to the primary narcissism of childhood. We do this by engaging in secondary narcissism. All the familiar attitudes and behaviors that one tends to think of when one disparages someone as “narcissistic” fall into the category of what Freud defined as secondary narcissism: the puffed up ego, the feeling of superiority over others. But even secondary narcissism, with its many patent problems, does not only aim to aggrandize the ego. The impetus of secondary narcissism, after all, is to return to a state in which the ego as such does not exist. The child’s autoerotic enjoyment at its mother’s breast is pleasurable in part because the child is not yet a subject. As with the death drive’s impulsion to return to “an earlier state of things,” secondary narcissism draws the subject back toward a prior time when the ego did not exist (Beyond 45). Yet if primary narcissism is looked back upon as the best of times, it must, from the vantage point of a fully constituted ego, appear as the worst of times, too. To be drawn back to primary narcissism would be to imagine the abolition of one’s self. For this reason, even though secondary narcissism may threaten to break down the ego, it also entails a defense against the threat/pleasure of that breaking down. Much as the differentiation between the inseparable processes of primary and secondary narcissism rests on a distinction between building up and breaking down the ego, a similar heuristic distinction gives structure to my concepts of primary and secondary pity. To be clear, pity and narcissism are not the same thing: if narcissism can be understood as love of the self, pity involves a complex affective reaction to the suffering of someone else. Primary pity entails a response to the image of another person succumbing to what I have termed the “tragedy of disability.”121 Primary pity arises when one witnesses a fall of the self, a collapse of the ego; such falling is at once painful and pleasurable to observe. In other words, primary pity could be described as a vicarious experience of the tragedy of disability. A great deal of the pain and pleasure of primary pity center on questions about what, or who, this fallen self is. When most people think about pity, we refer to an affect in which, to adopt Edelman’s phrase, we purport to “feel for the other.” But as with primary narcissism, in which the self has not yet been constituted, and therefore cannot be said to enter into intersubjective relations with an “other,” primary pity entails a mixing up of self and other such that the ego, in becoming permeable to pain that may properly belong to “someone else,” is profoundly threatened in its integrity. Primary pity is that intense pain-pleasure complex that is provoked by the image of a suffering other who, it seems momentarily, both is and is not one’s self. This affective response can feel unbearable, as seen in Siebers’s formulation: one “cannot bear to look…but also cannot bear not to look.” Primary pity is difficult to bear because it involves a drive toward disability (one cannot bear not to look), which menaces the ego’s investments in health, pleasure, and control—because to contemplate another person’s suffering is to confront the question, “Could this happen to me?” Such a prospect, although frightening, may also be compelling; in this way, primary pity replicates the self-rupturing aspects of sexuality. Indeed, the unbearability of primary pity reflects its coextensiveness with sexuality. Sex, or the Unbearable, a book coauthored by Edelman and by Lauren Berlant, argues that sex “unleashes unbearable contradictions that we nonetheless struggle to bear” (back cover). This claim accords with Freud’s account of sexuality as a “pleasurable” “unpleasure” that the ego can never fully master or control (Three 49,75). As Leo Bersani puts it in his reading of Freud, “the pleasurable unpleasurable tension of sexual enjoyment occurs when the body’s „normal‟ range of sensation is exceeded, and when the organization of the self is momentarily disturbed”; thus, “sexuality would be that which is intolerable to the structured self” (Freudian 38). Primary pity is also intolerable to the structured self, because it entails a fascination with the fantasy of a self in a state of disintegration or disablement. Secondary pity is something else, although it cannot wholly be differentiated from primary pity. Secondary pity attempts to heal primary pity’s self-rupturing effects by converting primary pity into a feeling that is bearable. As with secondary narcissism, secondary pity involves both an attempt to get back to that ego-shattering state of painfully pleasurable primary pity, and at the same time to defend against that threat to the ego by aggrandizing oneself at someone else’s expense. Secondary pity refers to all those ego-bolstering behaviors that most people think of when they talk about pity. Disabled people are all too familiar with these behaviors: the saccharin sympathy, the telethon rituals of “conspicuous contribution,” the insistence that “they” (i.e., nondisabled people) could never endure such suffering. More commonly known in our culture simply as “pity,” secondary pity encompasses our culture’s most clichéd reactions to disability: charity, tears, and calls for a cure. Correlatives of these commonplace manifestations of secondary pity are the obligatory claims that disabled people’s suffering is “inspiring.” Indeed, the speed with which conventional cultural representations of disability segue from overt expressions of pity to celebrations of “the triumph of the human spirit” highlights the ways in which secondary pity, as a defense against primary pity’s incursions, reinforces the ego’s fantasy of sovereignty. Secondary pity, in other words, can be seen as a variation of secondary narcissism: these affects enlarge the ego of the pitier or the narcissist at the expense of someone else. But primary pity is not the same as either primary narcissism, secondary narcissism, or secondary pity. Unlike primary narcissism, a feeling that emerges out of a relation to the world in which notions of “self” and “other” do not obtain, primary pity does depend upon the constructs of self and other, although these constructions are unstable and are continually threatening to come undone. Primary pity can thus be envisioned as a threshold category occupying a liminal position between the total denial of the other that is inherent to primary narcissism and the rigid structure of (superior) self and (inferior) other that constitutes secondary narcissism and secondary pity. My concept of primary versus secondary pity also differs from Freud’s primarysecondary narcissism distinction at the level of genealogy. Like Freud’s account of primary and secondary narcissisms, my model of primary and secondary pities involves a temporal transition; but whereas Freud imagines the movement from primary to secondary narcissism as a passage from an earlier to a later stage of an individual’s development, the temporal shift from primary to secondary pity happens much more quickly than this. It happens in an instant: that moment in which we feel primary pity and then, almost before we can blink, deny that we feel or have felt it. The denial is understandable: who wants to admit that one gets pleasure from the sight of another person’s suffering—or, to make matters worse, that this pleasure derives in part from the specter of disability’s transferability, the possibility that this suffering could be—and, fantasmatically, perhaps already is—an image of one‟s own self undone? Indeed, the model of primary pity that I have been constructing may sound a bit too close to sadism for some people’s liking. Pity does come close to sadism, and at the same time, to masochism, which Freud theorizes as sadism’s obverse. In “Mourning and Melancholia,” an essay that can be read as a sequel to “On Narcissism,” Freud approaches a distinction between primary and secondary masochism, which accords with my primary-secondary pity heuristic.122 If the story that I traced in “On Narcissism” could be summarized as “child gets breast; child loses breast; child gets breast back, albeit in a secondary, adulterated form,” the tale that Freud tells about masochism takes much the same form. In this story, subject loves object; subject loses object; and subject tries to get object back by becoming object, that is, by identifying with the object in such a way that object starts to seem—and perhaps in some ways is—part of subject’s self. This last phase is a dysfunctional and disabling form of identification, Freud makes clear. Subject is still angry at object for having left it, and it takes out that anger on the object that is now part of itself. This is the reason that people suffering from melancholia are so hard on themselves, Freud says; the “diminution in…self-regard” that typically accompanies melancholia results from the subject’s attacks on the loved-and-lost object that the subject has incorporated into its ego (“Mourning” 246). Freud had not wanted there to be such a thing as primary masochism; for a long time, he had insisted that sadism, or “aggression,” was the primary instinct, and that masochism was only a turning-inward of this originary aggression. But in “Mourning and Melancholia,” although Freud does not yet use the term “primary masochism,” he nonetheless gets at this concept. The problem of suicide, Freud notes in this essay, raises the possibility that the ego “can treat itself as an object” that it wants to destroy (252). When it comes to such an extreme act as suicide, the possibility of carrying “such a purpose through to execution” must, Freud surmises, involve more than a sadistic wish to punish others. Perhaps, then, there is an innate desire to destroy one’s own self, Freud hypothesizes. If so, this self would not be a single thing: it would be “me” and at the same time, the lost object whose image “I” have internalized. Freud’s notion of a primary masochism is tied very closely to his conceptualization of the drive. Beyond the Pleasure Principle, the text in which Freud first used the term “death drive,” was published three years after “Mourning and Melancholia.” In the later text, Freud’s speculations about the death drive lead him to acknowledge that “there might be such a thing as primary masochism” (66). After all, Freud points out, the idea that either sadism or masochism definitively takes precedence over the other does not ultimately make much sense, as “there is no difference in principle between an instinct turning from the object to the ego and its turning from the ego to an object” (66). If sadism and masochism are ultimately indistinguishable obverses of each other, then pity, in both its primary and its secondary forms, would have to be both sadistic and masochistic. This is a deeply troubling possibility, but I suggest that trying to overcome pity will only make matters worse. There are many ways of trying to overcome primary pity, and each one ultimately aggravates the violence of primary pity. One way is the “pitiless” refusal of compassion that Edelman advocates (70). Another is the disability activist “No pity” injunction. A third example is secondary pity, as in the query, commonly addressed to disabled people, “Have you ever thought of killing yourself?”123 In this question, disabled people correctly hear the wish, “I’d like to kill you.” Indeed, primary pity is so unsettling that our culture has been driven to “mercifully” kill people in the name of secondary pity. We have also been driven to lock people in institutions, to let them languish on the streets, to stare, to punish, and to sentimentalize—all, I would suggest, in the interest of not owning, not naming, not acknowledging that self-shattering, ego-dissolving, instantaneous and intolerable moment of primary pity. Because primary pity is tied up with the disability drive, it must, like the drive itself, be regarded as unrepresentable. However, I will quote at length from a passage of writing that comes close not only to representing primary pity but also perhaps to producing it. In his memoir, One More Theory About Happiness, Paul Guest describes an experience that he had in the hospital after sustaining a spinal cord injury when he was twelve years old: My stomach still roiled and it was hard to keep anything down. Late one night, a doctor came to my bedside, leaning over me, his hands knotted together. He seemed vexed, not quite ready to say anything. Used to the look, I waited. And then he began. “The acids in your stomach, Paul, because of everything you’re going through, it’s like your body, everything about it, is upset. That’s why you feel so nauseous all the time. We’re going to treat that by putting a tube into your nose and down into your stomach, so we can give you medicine, OK?” When he walked away, I felt something begin to give way inside me. Up until then, I’d faced more misery and indignity than I would have thought possible. I lay there, numb and sick in a diaper, helpless. It was too much to bear, too frightening, a last invasion I could experience and not break, utterly. When he returned with nurses, I was already sobbing. Anyone so limited could hardly fight, but I tried. I tried. The neck collar prevented much movement, and any was dangerous, but I turned my head side to side, just slightly, a pitiful, unacceptable range. Fat tears rolled down my face like marbles. I begged them all, no, no, no, please no. “Hold him, hold him still,” the doctor said. Nurses gripped my head on either side. From a sterile pack, the doctor fished out a long transparent tube and dabbed its head in a clear lubricant. He paused almost as if to warn me but then said nothing. 77 Then the tube entered one nostril, its gauge slight enough to pass through, down my throat and into my stomach. I couldn’t thrash or resist. I could only relent. To the pain, the discomfort, but most distressingly the feeling of powerlessness, of violation. It was in that moment, I think, that the weight of everything which had happened fell upon me, undeniably, and the knowledge of it crushed me. (23-24) “Too much to bear,” Guest writes. The word “unbearable” would indeed be an accurate descriptor of this passage: both the experience of violence that it narrates and also the retelling of that experience produce sensations that, as in Berlant and Edelman’s account of sexuality, one cannot bear but must nonetheless “struggle to bear” (back cover). Guest’s account of a nonconsensual administration of an unwanted medical treatment is especially difficult to bear because it gives the reader no recourse to secondary pity: the passage offers no “lesson” to be learned, no invitation to feel “inspired,” nothing to make one feel in any way okay about what has happened. The medical violence that Guest recounts seems particularly devastating because it is readable as sexual: it takes the form of forced penetration, and it results in a “feeling of powerlessness, of violation” that resonates with experiences recounted by survivors of sexual assault.

#### The affirmative’s politics are tied to a rehabilitative futurism where the signifier of the fantasmatic child is placed forward to eradicate and cure disability – this deems the disabled child a threat and excludes disability from the political.

**Mollow 2** Anna (2015): The Disability Drive, A dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of Philosophy in English in the Graduate Division of the University of California, Berkeley Committee in charge: Professor Kent Puckett, Chair Professor Celeste G. Langan Professor Melinda Y. Chen Spring 2015 <https://digitalassets.lib.berkeley.edu/etd/ucb/text/Mollow_berkeley_0028E_15181.pdf> SJCP//JG

Elsewhere, I have argued that No Future’s impassioned polemic is one that disability studies might take to heart.109 Indeed, the figure that Edelman calls “the disciplinary image of the “innocent” Child” is inextricable not only from queerness but also from disability (19). For example, the Child is the centerpiece of the telethon, a ritual display of pity that demeans disabled people. When Jerry Lewis counters disability activists’ objections to his assertion that a disabled person is “half a person,” he insists that he is only fighting for the Children: “Please, I’m begging for survival. I want my kids alive,” he implores (in Johnson, Too Late 53, 58). If the Child makes an excellent alibi for ableism, perhaps this is because, as Edelman points out, the idea of not fighting for this figure is unthinkable. Thus, when Harriet McBryde Johnson hands out leaflets protesting the Muscular Dystrophy Association, a confused passerby cannot make sense of what her protest is about. “You’re against Jerry Lewis!” he exclaims (61). The passerby’s surprise is likely informed by a logic similar to that which, in Edelman’s analysis, undergirds the use of the word “choice” by advocates of legal abortion: “Who would, after all, come out for abortion or stand against reproduction, against futurity, and so against life?” (16). Similarly, why would anyone come out for disability, and so against the Child who, without a cure, might never walk, might never lead a normal life, might not even have a future at all? The logic of the telethon, in other words, relies on an ideology that might be defined as “rehabilitative futurism,” a term that I coin to overlap and intersect with Edelman’s notion of “reproductive futurism.” If, as Edelman maintains, the future is envisaged in terms of a fantasmatic “Child,” then the survival of this future-figured-as-Child is threatened by both queerness and disability. Futurity is habitually imagined in terms that fantasize the eradication of disability: a recovery of a “crippled” or “hobbled” economy, a cure for society’s ills, an end to suffering and disease. Eugenic ideologies are also grounded in both reproductive and rehabilitative futurism: procreation by the fit and elimination of the disabled, eugenicists promised, would bring forth a better future.110

#### The starting point of the 1AC is epistemically flawed and an independent link – fiat is illusory and anything that doesn’t begin from the question of disability allows for ableism to infiltrate modes of thought which means we’re an epistemic prerequisite. Thus, the role of the ballot is to vote for the debater who best methodologically challenges ableism.

**Campbell 13** Fiona Kumari (2013): Problematizing Vulnerability: Engaging Studies in Ableism and Disability Jurisprudence, Fiona Kumari Campbell undertakes research in Studies in Ableism, coloniality, disability studies as well as explorations about Buddhist formations of disability. Trained in sociology, theology and legal studies; she is interested in ways that law, new technologies and the governance of marginal populations produces understandings of the productive citizen, normative bodies, ideas of periphery and ways that ablement privileges and entitles certain groups in society. Campbell is the author of Contours of Ableism: The Production of Disability and Abledness (Palgrave, 2009) and numerous other journal articles and book chapters. SJCP//JG

Studies in Ableism What is meant by the concept of ableism? The literature suggests that the term is often used fluidly with limited definitional or conceptual specificity. The work of Carlson (2001)5 and Campbell (2001) represented a turning point in bringing attention to this new site of subordination not just in terms of disablement but also ableism’s application to other devalued groups. Ableism is deeply seeded at the level of knowledge systems of life, personhood and liveability. Ableism is not just a matter of ignorance or negative attitudes towards disabled people; it is a schema of perfection, a deep way of thinking about bodies, wholeness and permeability.6 As such integrating ableism into social research and advocacy strategies represents a significant challenge to practice as ableism moves beyond the more familiar territory of social inclusion and usual indices of exclusion to the very divisions of life. Bringing together the study of existence and knowledge systems, ableism is difficult to pin down. Ableism is a set of processes and practices that arise and decline through sequences of causal convergences influenced by the elements of time, space, bodily inflections and circumstance. Ability and the corresponding notion of ableism are intertwined. Compulsory ablebodiedness is implicated in the very foundations of social theory, therapeutic jurisprudence, advocacy, medicine and law; or in the mappings of human anatomy. Summarised by Campbell (2001, 44) Ableism refers to; …A network of beliefs processes and practices that produces a particular kind of self and body (the bodily standard) that is projected as the perfect, speciestypical and therefore essential and fully human. Disability then is cast as a diminished state of being human. Writing today (2013) I add an addition to this definition: ‘The ableist bodily configuration is immutable, permanent and laden with qualities of perfectionism or the enhancement imperative orientated towards a self-contained improvability’. Sentiency applies to not just the human but the ‘animal’ world. As a category to differentiate the normal from the pathological, the concept of abledness is predicated on some preexisting notion about the nature of typical species functioning that is beyond culture and historical context. Ableism does not just stop at propagating what is typical for each species. An ableist imaginary tells us what a healthy body means – a normal mind, the pace, the tenor of thinking and the kinds of emotions and affect that are suitable to express. Of course these ‘fictional’ characteristics then are promoted as a natural ideal. This abled imaginary relies upon the existence of an unacknowledged imagined shared community of able-bodied/minded people held together by a common ableist world view that asserts the preferability and compulsoriness of the norms of ableism. Such ableist schemas erase differences in the ways humans express our emotions, use our thinking and bodies in different cultures and in different situations. This in turn enacts bodily Otherness rendered sometimes as the ‘disabled’, ‘perverted’ or ‘abnormal body’, clearly demarcating the boundaries of normal and pathological. A critical feature of an ableist orientation is a belief that impairment or disability is inherently negative and at its essence is a form of harm in need of improvement, cure or indeed eradication.

#### Vote negative to endorse an unwavering pessimism and radical failure – we reject the political and notions of futurism in exchange for an affirmation of disability’s abjection as something beautiful.

**Selck 16** Michael (2016): Crip Pessimism: The Language of Dis/ability and the Culture that Isn't, Southern Illinois University Carbondale, SJCP//JG

The disabled are dying and with them dis/abled culture is being eradicated. In the time between formulating this project and its completion already too many disabled souls have been taken from this world, including pivotal disability studies influences for this research. I barely had enough time to mourn the loss of disability advocate and inspiration porn critic Stella Young before grieving the loss of disability studies exemplar Tobin Siebers. Attached to the grief I feel as a result of the fading disability studies community is the perpetual grief I harbor since my disabled Father’s suicide and in turn the grief concomitant to the claiming of a disabled identity. I choose to start out this project with grief because it communicates the tenor of this research; this is not the disability studies project of inspiration or utopia. My entry point to the disability studies dialogue is riddled with grief, anger, and pain and it is as such that this project plots a course of disability research that attempts to make a space free from the ideological constraints of optimism. The language surrounding dis/ability is highly political. Entire words, phrases, and identities are stretched between, in, and out of the nexus of dis/ability. The choice, for instance, to include a backslash in the word dis/ability represents for Goodley (2014) a desire to delineate and expand each of the categories in the face of global neoliberalism. My initial research inquired about the impact of dis/abled terms and phrases. I went to interrogate rhetoric like “special education”, “handicapable”, and one of the most glaringly overused insults in the American education system “retard”. The scholarship I was coming up with was plentiful but was for the most part located entirely outside of intercultural communication programs like the one I was attending. For the most part the few and far between intercultural communication projects about dis/ability I was able to locate were without modal complexity and didn’t bear semblance to so many of my own experiences. I was beginning to notice a layer of optimism that has been communicatively imprinted upon the negotiation of dis/abled identity. The angst started to manifest as I questioned if I was in the correct field or if dis/ability even was ‘cultural’. I felt a very real cultural erasure of dis/ability in academia and ultimately that glaring lack of consideration is what pushed me to performance studies. I first worked to close the apparent research gap by crafting a collaborative performance titled Under the Mantle (UTM), which put dis/ability, communication scholarship, and pessimist philosophy on stage. The larger purpose of this research report is to antagonize the erasure of dis/ability from communication studies by autoethnographically analyzing the crip-pessimist performance art project Under The Mantle. This research report will first detail the components of the theoretical work that was drawn on to create UTM. Next I offer a literature review to demonstrate the combination of optimism and neglect dis/ability has undergone in intercultural communication models. Following that section I mark my shift to performance methods as I explain how narrative autoethnography can illuminate cultural misconceptions regarding the dis/abled. In the last sections of this report I offer a textual analysis of the performance UTM and analyze three significant arguments of the instillation before concluding. Contextualizing Critical Dis/Ability Theory Often used interchangeably, critical disability theory (CDT) and critical disability studies (CDS) contest dis/ablism (Goodley, 2011, 2014; Devlin & Pothier, 2006; Hosking, 2008). There are several unique additions made to CDS with every new instantiation. Scholars in European countries and Canada attend to the theory, with United States academics often underrepresented. There are three concurrent themes of CDT that I will synthesize in this section with some dis/ability studies authors claiming there are as many as seven themes of CDT (Hosking, 2008). In the introduction to their edited collection of dis/ability essays, Richard Devlin and Dianne Pothier (2006) present three themes of CDT as, first, to highlight the unequal status to which persons with disabilities are confined; second, to destabilize necessitarian assumptions that reinforce the marginalization of persons with disabilities; and third, to help generate the individual and collective practical agency of persons with disabilities in the struggles for recognition and redistribution. (p. 18, emphasis mine) Already the connections between the CDT and the critical communication paradigm are visible as each respectively forefronts notions of power, privilege, identity, and agency. Outlined in more detail, the first theme of CDT argues that there is systemic micro and macro level discrimination against bodies with disabilities. To some critical communication scholars, this theme might be obvious, but it seldom is when “the resulting exclusion of those who do not fit able-bodied norms may not be noticeable or even intelligible” (Delvin & Pothier, 2006, p. 7). As the bumper sticker on my laptop proudly disclaims, “Not all disabilities are visible,” which necessarily adds a level of nuance and complexity to the way that dis/ability studies attend to the prospect of discrimination and violence. Often times, “social organization according to able-bodied norms is just taken as natural, normal, inevitable, necessary, even progress” (Delvin & Pothier, 2006, p. 7). It might be true that the lack of collaborative work between critical communication studies and dis/ability studies is because neoliberalism is supremely effective at rebranding marginalized oppression as a marker of its progress. The implications of this assertion are dire but essential to the basis of crip-pessimism. Theoretical approaches based in pessimism and skepticism are often necessary to distinguish the instruments of self destruction that have been mistaken for those of self betterment. Thus, a key question remains, what is regarded as progress and to whom does it count? The politics of progress call for the second tenet of CDT, which is a destabilization of neoliberal practices that strip power and agency from bodies with disabilities. Devlin and Pothier (2006) use the language of “anti-necessitarian” (p. 2), which refers to the efficacy of social organizations and an unflinching skepticism of liberalism. For Shildrick and Price (1999), “disabled bodies call into question the ‘giveness’ of the ‘natural body’ and, instead, posit a corporeality that is fluid in its investments and meanings” (p. 1). Anti-necessitarian logics ask questions that remain innocuous to the critical communication paradigm. Can the architectural proliferation of stairs and multiple levels on buildings be attributed to neoliberalism and active disablism? If stairs seem to focus too exclusively on physical impairments, then what about the sensitivity of the building’s lighting, acoustics, and spatiality? Finally, if neoliberalism fights to protect its grand narrative of progress then is the social exclusion of bodies with disabilities necessary for the day-to-day operation of our globalized world? As Donaldson (2002) posits: “theories of gendered, raced, sexed, classed, and disabled bodies offer us critical languages for ‘denaturalising’ impairment’” (p. 112) at the level of the subjective and inter-subjective. The third theme of CDT is to attend to the agency of bodies with disabilities in the struggle for recognition. One key element of extending agency to the disabled is the use of social experience. Experience is subjective “but experience remains intimately connected to political and social existence, and therefore individuals and societies are capable of learning from their experiences” (Siebers, 2008, p. 82). Though absolutely necessary, it is not enough to write treatises on the oppression of the disabled over time. Academics, theorists, intercultural trainers, and storytellers alike should be aware of the constant risks of representation. Representation and context are at the core of critical disability studies. The notion of agency is as unstable as the notions of dis/ability. There is no one-size-fits-all human rights based approach that will be suitable to address all disabled experiences, as the theoretical call for crip-pessimism will remind us. Instead of a universal abstract Rawlsian concept of social justice, CDS “attend(s) to the relational components of dis/ablism” (Goodley, 2011, p. 159). By a Rawlsian concept of social justice I mean a model that relies on distributive justice with utopist equality at its core. Where utopist equality projects highlight human sameness to the point of purity. CDT unavoidably invites a discussion about difference into the folds as postmodern and post-structural thinkers position the self as defined constantly in relation to others. Therein lies the difference between an equality model and a justice model of social identity. Often in the attempt to open up spaces for reconsidering self and other, CDS celebrates disability as a positive identity marker. This essay offers a strong argument of caution that the inclusion of CDS in critical communication studies might rely too heavily on celebrations of disabled identity. Nothing better demonstrates that reliance on celebrating identity than the myriad language choices used to describe a disabled identity including: differently-abled, special needs, person with disability, disabled person, temporarily able-bodied, and others. Often, able- bodied audiences have a tendency to sensationalize the presence of disability in a space that has not traditionally welcomed it. Examples of this are highlighted by the increasingly popular discussion of ‘inspiration porn’ (Young, 2014) and Hollywood’s representation of disability. The tendency is to inspirationalize the disabled for achieving tasks that would not be celebrated if they were accomplished by an unimpaired body. Crossing the street, showing up on time, entering a building by oneself are all tasks profoundly routine to the non-disabled and yet simultaneously cherished as markers of progress for the disabled. Philosophical pessimism is articulated next as a way to temper the risk of sensationalizing dis/ability. The theories ultimately fuse together like orchids and wasps to generate the larger theme of crip-pessimism. Philosophical Pessimism Throughout the 19th century pessimism was one of the most popular intellectual and philosophical strains, crossing countries and continents. Authors such as Rousseau, Leopardi, Schopenhauer, and Nietzsche overwhelmingly created and lead the spirit of pessimism. Contemporarily however, the word ‘pessimism’ is pejorative and describes a body’s emotional discontent rather than intellectual engagement with the world. Dienstag (2009) writes, “Since pessimism is perceived more as a disposition than as a theory, pessimists are seen primarily as dissenters from whatever the prevailing consensus of their time happens to be, rather than as constituting a continuous alternative” (p. 3). Power is responsible for ontological shifts, and during shifts some populations benefit while others are harmed. The turn in thinking about pessimism from an intellectual position to an emotional state has been particularly gratuitous for bodies with disabilities. I come to pessimism because of my experience with disability. My anxiety disorder comes with an exteriority of anti-social behavior that has branded me pessimistic. The concern for my anxiety in public situations is often commented on as overly critical, negative, narcissistic, and most often pessimistic. I experience an anxious state of becoming different, and after years of failing to rehabilitate my sameness to able-bodied standards, I have come to a comfort with pessimism. I choose to include pessimism as a theoretical crutch to avoid communication studies’ sensationalism of disability. I imagine that when critical communication studies does bridge the dis/ability research gap that it might, at least initially, extend some neoliberal logics at the expense of CDS. This might manifest by scholars simply asserting disabled personhood where it does not institutionally, culturally, or individually exist. I find that CDT and philosophical pessimism combine in unique and valuable ways, particularly around tensions of personhood, abstract ideal humanism, and neoliberalism. Neoliberalism should be understood as “the superiority of individualized, market-based competition over other modes of organization. This basic principle is the hallmark of neo-liberal thought— one with old roots that lay partly in Anglo economics and partly in German schools of liberalism” (Mudge, 2008, p. 706-707). There are four components of pessimism outlined by Joshua Foa Dienstag (2006) in his book Pessimism: Philosophy, Ethic, Spirit that I wish to explore difference through. They are as following that: (1) time is a burden, (2) history is ironic, (3) human existence is absurd, and finally (4) resignation or affirmation. To write about pessimism necessarily involves questions of time, temporality, and history. The development of philosophical pessimism, specifically, the theories regarding the burden of time-consciousness, begins with difference. For the pessimist, the concept of time begets a differentiation between human and animal. Being a dog-owner myself, I have heard the colloquial aphorism that dogs, as all animals, have no concept of time. Pessimists understand time consciousness as a unique, but ultimately loathsome, trait of the human condition. Even in projects that appear to be geared toward sameness there are always unperceived and neglected populations. For example, even the U.S. constitution alleges persons of color were (and still are often) racially subjugated as property instead of considered to be fully human. The notion of difference is at the center of the pessimist’s position on time-consciousness because the philosophy accepts that the conditions of our existence are subject to relentless unpredictable change. “To the pessimists, however, the human condition is existentially unique— its uniqueness consisting precisely in the capacity for time-consciousness” (Dienstag, 2009, p. 20). For the pessimist nothing is ever the same, everything is always different, and to inhabit linear time means that everything in existence is always rushing off into the past. The advent of human time consciousness is also what leads the pessimist to find the course of history to be ironic. History is ironic for the pessimist because progress is always related to a greater set of unperceived consequences. As suggested above, philosophical pessimism acknowledges that change occurs; technologies develop and improve over time. Pessimists ask if those improvements are related to a greater set of costs that are not immediately recognizable. (Dienstag, 2006, p. 25) Similar to critical disability theory, pessimism interrogates power and privilege. Pessimists rely on the logic of difference to chart consequences. Consequences go unperceived because they occur across populations with disproportionate access to power, populations that are often culturally unintelligible. For instance, the massive boom in mobile technologies like cell phones and laptops has created vast pits of ‘e-waste’ in Africa, surges in child labor, and conflict over rare earth minerals (Vidal, 2013). Pessimists use difference to tease out the distinction between the instruments of suffering and those of betterment. The third philosophical pessimistic position is that human existence is absurd. The absurdity of existence “is illustrated by the persistent mismatch between human purposes and the means available to achieve them: or again, between our desire for happiness and our capacity to encounter or sustain it” (Dienstag, 2006, p. 32). Difference is built upon exanimations of power, which is both fluid and transferable but ultimately permanent. Classical western philosophy has an optimistic pragmatism built into it that posits there must be an answer to our questions. Alternatively, the pessimist embraces uncertainty, ambiguity, and intersubjectivity. Pessimism encourages a sense of comfort around the idea of multiple, coexistent, and perhaps competing histories. Neoliberal optimism is the logic of conflict as materially reconcilable, rather than antagonistically irreconcilable. The fourth and final tenet of pessimism that we are to examine asks what we are to do about our dire human condition. There are multiplicities of rationales that ultimately inform the pessimistic dualism to either resign from life or affirm it entirely. I defer to an existential or Nietzschean pessimism that recognizes suffering is inevitable for two reasons. First, human time-consciousness necessitates an awareness of our impending death. Second, mutually assured value systems will always intersubjectively exist. The choice to affirm life in its entirety is a pessimistic choice. Embracing life as both miserable and beautiful, fleeting and enduring, validates the perpetually fragmented subject seeking a world that exists beyond good and evil and instead just is.

## Case

Control how fw operates

Extonctoin

[1] unciertianity double bind

[2] papers over

[3] freeze action

#### NASA rock relocations thump the aff --- plan doesn’t affect, and there’s other methods of mining

Sarah Scoles 15, “Dust from asteroid mining spells danger for satellites,” New Scientist, 5-27-2015, https://www.newscientist.com/article/mg22630235-100-dust-from-asteroid-mining-spells-danger-for-satellites/

NASA chose the second option for its Asteroid Redirect Mission, which aims to pluck a boulder from an asteroid’s surface and relocate it to a stable orbit around the moon. But an asteroid’s gravity is so weak that it’s not hard for surface particles to escape into space. Now a new model warns that debris shed by such transplanted rocks could intrude where many defence and communication satellites live – in geosynchronous orbit. According to Casey Handmer of the California Institute of Technology in Pasadena and Javier Roa of the Technical University of Madrid in Spain, 5 per cent of the escaped debris will end up in regions traversed by satellites. Over 10 years, it would cross geosynchronous orbit 63 times on average. A satellite in the wrong spot at the wrong time will suffer a damaging high-speed collision with that dust. The study also looks at the “catastrophic disruption” of an asteroid 5 metres across or bigger. Its total break-up into a pile of rubble would increase the risk to satellites by more than 30 per cent (arxiv.org/abs/1505.03800). That may not have immediate consequences. But as Earth orbits get more crowded with spent rocket stages and satellites, we will have to worry about cascades of collisions like the one depicted in the movie Gravity. Handmer and Roa want to point out the problem now so that we can find a solution before any satellites get dinged. “It is possible to quantify and manage the risk,” says Handmer. “A few basic precautions will prevent harm due to stray asteroid material.”

#### Collision risk is infinitesimally small

Fange 17 Daniel Von Fange 17, Web Application Engineer, Founder and Owner of LeanCoder, Full Stack, Polyglot Web Developer, “Kessler Syndrome is Over Hyped”, 5/21/2017, http://braino.org/essays/kessler\_syndrome\_is\_over\_hyped/

The orbital area around earth can be broken down into four regions. Low LEO - Up to about 400km. Things that orbit here burn up in the earth’s atmosphere quickly - between a few months to two years. The space station operates at the high end of this range. It loses about a kilometer of altitude a month and if not pushed higher every few months, would soon burn up. For all practical purposes, Low LEO doesn’t matter for Kessler Syndrome. If Low LEO was ever full of space junk, we’d just wait a year and a half, and the problem would be over. High LEO - 400km to 2000km. This where most heavy satellites and most space junk orbits. The air is thin enough here that satellites only go down slowly, and they have a much farther distance to fall. It can take 50 years for stuff here to get down. This is where Kessler Syndrome could be an issue. Mid Orbit - GPS satellites and other navigation satellites travel here in lonely, long lives. The volume of space is so huge, and the number of satellites so few, that we don’t need to worry about Kessler here. GEO - If you put a satellite far enough out from earth, the speed that the satellite travels around the earth will match the speed of the surface of the earth rotating under it. From the ground, the satellite will appear to hang motionless. Usually the geostationary orbit is used by big weather satellites and big TV broadcasting satellites. (This apparent motionlessness is why satellite TV dishes can be mounted pointing in a fixed direction. You can find approximate south just by looking around at the dishes in your northern hemisphere neighborhood.) For Kessler purposes, GEO orbit is roughly a ring 384,400 km around. However, all the satellites here are moving the same direction at the same speed - debris doesn’t get free velocity from the speed of the satellites. Also, it’s quite expensive to get a satellite here, and so there aren’t many, only about one satellite per 1000km of the ring. Kessler is not a problem here. How bad could Kessler Syndrome in High LEO be? Let’s imagine a worst case scenario. An evil alien intelligence chops up everything in High LEO, turning it into 1cm cubes of death orbiting at 1000km, spread as evenly across the surface of this sphere as orbital mechanics would allow. Is humanity cut off from space? I’m guessing the world has launched about 10,000 tons of satellites total. For guessing purposes, I’ll assume 2,500 tons of satellites and junk currently in High LEO. If satellites are made of aluminum, with a density of 2.70 g/cm3, then that’s 839,985,870 1cm cubes. A sphere for an orbit of 1,000km has a surface area of 682,752,000 square KM. So there would be one cube of junk per .81 square KM. If a rocket traveled through that, its odds of hitting that cube are tiny - less than 1 in 10,000.

#### Lack of attribution means no retal

Schwarzer et al ’19 [Daniela, Eva-Marie McCormack, and Torben Schutz; Director, Editor, and Associate Fellow in the Security, Defense, and Armaments Program at the German Council of Foreign Relations; Deutsche Gesellschaft fur Auswartige Politik, “Technology and Strategy: The Changing Security Environment in Space Demands New Diplomatic and Military Answers,” [https://www.ssoar.info/ssoar/bitstream/handle/document/63288/ssoar-2019-schutz-Technology\_and\_Strategy\_the\_Changing.pdf](https://www.ssoar.info/ssoar/bitstream/handle/document/63288/ssoar-2019-schutz-Technology_and_Strategy_the_Changing.pdf?sequence=1&isAllowed=y&lnkname=ssoar-2019-schutz-Technology_and_Strategy_the_Changing.pdf);]

However, even a (misinterpreted) threat to space assets could start a chain reaction and quickly escalate an incident in space to a wider war. Successful deterrence, therefore, requires situational awareness, attribution capabilities and resilient assets. Especially the latter two are notoriously difficult to achieve in space. While it might be easy to attribute a kinetic attack executed with a missile, the same is not true for ASAT attacks by other satellites, and, especially, not for cyberattacks and electronic warfare measures. Without clear attribution, however, it is difficult to deter any adversary, since he could speculate that an attack cannot be traced back to him – making deterrence and retaliation more difficult. Although cross-domain deterrence, i.e. threatening an actor through potential retaliation attacks on or by other-than-space assets, is always possible, it also amplifies the problems involved in traditional deterrence: A response has to be timely and proportionate, and it should not further expand of the conflict.

#### Uncertainty from debris collisions creates restraint not instability BUT the aff’s reduction greenlights space war

MacDonald 16, B., et al. "Crisis stability in space: China and other challenges." Foreign Policy Institute. Washington, DC (2016). (senior director of the Nonproliferation and Arms Control Project with the Center for Conflict Analysis and Prevention)//Elmer

In any crisis that threatens to escalate into major power conflict, political and military leaders will face uncertainty about the effectiveness of their plans and decisions. This uncertainty will be compounded when potential conflict extends to the space and cyber domains, where weapon effectiveness is largely untested and uncertain, infrastructure interdependencies are unclear, and damaging an adversary could also harm oneself or one’s allies. Unless the stakes become very high, no country will likely want to gamble its well-being in a “single cosmic throw of the dice,” in Harold Brown’s memorable phrase. 96 The novelty of space and cyber warfare, coupled with risk aversion and worst-case assessments, could lead space adversaries into a situation of what can be called “hysteresis,” where each adversary is restrained by its own uncertainty of success. This is conceptually shown in Figures 1 and 2 for offensive counter-space capabilities, though it applies more generally. 97 These graphs portray the hypothetical differences between perceived and actual performance capabilities of offensive counter-space weapons, on a scale from zero to one hundred percent effectiveness. Where uncertainty and risk aversion are absent for two adversaries, no difference would exist between the likely performance of their offensive counter-space assets and their confidence in the performance of those weapons: a simple, straight-line correlation would exist, as in Figure 1. The more interesting, and more realistic, case is notionally presented in Figure 2, which assumes for simplicity that the offensive capabilities of each adversary are comparable. In stark contrast to the case of Figure 1, uncertainty and risk aversion are present and become important factors. Given the high stakes involved in a possible large-scale attack against adversary space assets, a cautious adversary is more likely to be conservative in estimating the effectiveness of its offensive capabilities, while more generously assessing the capabilities of its adversary. Thus, if both side’s weapons were 50% effective and each side had a similar level of risk aversion, each may conservatively assess its own capabilities to be 30% effective and its adversary’s weapons to be 70% effective. Likewise, if each side’s weapons were 25% effective in reality, each would estimate its own capabilities to be less than 25% effective and its adversary’s to be more than 25% effective, and so on. In Figure 2, this difference appears, in oversimplified fashion, as a gap that represents the realistic worry that a country’s own weapons will under-perform while its adversary’s weapons will over-perform in terms of effectiveness. If both countries face comparable uncertainty and exhibit comparable risk aversion, each may be deterred from initiating an attack by its unwillingness to accept the necessary risks. This gap could represent an “island of stability,” as shown in Figure 2. In essence, given the enormous stakes involved in a major strike against the adversary’s space assets, a potential attacker will likely demonstrate some risk aversion, possessing less confidence in an attack’s effectiveness. It is uncertain how robust this hysteresis may prove to be, but the phenomenon may provide at least some stabilizing influence in a crisis. In the nuclear domain, the immediate, direct consequences of military use, including blast, fire, and direct radiation effects, were appreciated at the outset. Nonetheless, significant uncertainty and under-appreciation persisted with regard to the collateral, indirect, and climatological effects of using such weapons on a large scale. In contrast, the immediate, direct effects of major space conflict are not well understood, and potential indirect and interdependent effects are even less understood. Indirect effects of large-scale space and cyber warfare would be virtually impossible to confidently calculate, as the infrastructures such warfare would affect are constantly changing in design and technology. Added to this is a likely anxiety that if an attack were less successful than planned, a highly aggrieved and powerful adversary could retaliate in unanticipated ways, possibly with highly destructive consequences. As a result, two adversaries facing potential conflict may lack confidence both in the potential effectiveness of their own attacks and in the ineffectiveness of any subsequent retaliation. Such mutual uncertainty would ultimately be stabilizing, though probably not particularly robust. This is reflected in Figure 2, where each side shows more caution than the technical effectiveness of its systems may suggest. Each curve notionally represents one state’s confidence in its offensive counter-space effectiveness relative to their actual effectiveness. Until true space asset resilience becomes a trusted feature of space architectures, deterrence by risk aversion, and cross-domain deterrence, may be the only means for deterrence to function in space.

#### I’ll concede naturally occurring asteroid collissions are inevitable and guaranteed – that means its try or die for deflection technology – the Sagan and Ostro study they cite only concludes deflection risks outweigh because misuse has a higher probability than natural collision but that flips neg if they read ev that natural collisions are guaranteed

AC Koplow 19 [David A. Koplow. Professor of Law at Georgetown University. He specializes in the areas of public international law, national security law, and the intersection between international law and U.S. constitutional law. Koplow served as Special Counsel for Arms Control to the General Counsel of the Department of Defense (2009-2011); Deputy General Counsel for International Affairs at the Department of Defense (1997-1999); and as Attorney-Advisor and Special Assistant to the Director of the U.S. Arms Control and Disarmament Agency (1978-1981). A Rhodes scholar, Koplow graduated from Harvard College and Yale Law School. "Exoatmospheric Plowshares: Using a Nuclear Explosive Device for Planetary Defense against an Incoming Asteroid," UCLA Journal of International Law and Foreign Affairs 23, no. 1 (Spring 2019): 76-158]

Astronomers are fond of observing that the real question is not "whether" Earth will again be struck by a large asteroid, but "when." We can detect around the planet the remnants of scores of impact craters of diverse size and age left by previous NEOs, and the pockmarks are even more obvious on the Moon and other celestial bodies, where erosion has not degraded their silhouettes. As asteroids pinball around the Solar System, it is only a matter of time before the next jarring impact-time that might be measured in months or in millions of years.

#### No Astro-terror – no one will use deflection technology.

Wall 11 Mike Wall 11-4-2011 “Why Asteroids Make Lousy Space Weapons” <https://www.space.com/13515-asteroid-deflection-space-weapons.html> (Ph.D. in evolutionary biology from the University of Sydney, Australia)//Elmer

If you lie awake at night worrying about some supervillain steering giant asteroids toward your hometown, you really should relax, experts say. It's not going to happen anytime soon. Humanity does indeed have the technical skills to move space rocks around, and we may employ this know-how at some point to avoid a catastrophic impact like the one that killed the dinosaurs 65 million years ago. But the odds of any rogue state using asteroids to rain death down on its enemies are minuscule, experts say. "It's a lousy weapon," said former astronaut Rusty Schweickart, chairman of the B612 Foundation, a group dedicated to predicting and preventing cataclysmic asteroid impacts on Earth. "You get a chance to use one once every several hundred years," Schweickart said during a recent panel discussion called "Moving an Asteroid" at the California Institute of Technology in Pasadena. "And even then, you can only deflect it to hit someplace along a sort of arbitrary line across the Earth." [Top 10 Space Weapons] Serious spaceflight skills Changing the orbit of a massive asteroid hurtling through deep space sounds like a daunting task, but our species knows how to do it. For example, we could launch a spacecraft that would rendezvous with an asteroid, then travel alongside it for months or years. Over time, the probe's modest gravity would tug on the space rock, pulling it into a different orbit, Schweickart said. Given enough time to act, this so-called "gravity tractor" method could work in quite precise and predictable ways. And we've demonstrated the skills necessary to make it happen. Multiple missions have met up with asteroids in deep space. For example, NASA's Dawn spacecraft is currently in orbit around Vesta, the second-largest object in the main asteroid belt between Mars and Jupiter. And in 2005, Japan's Hayabusa probe rendezvoused with a space rock called Itokawa. The craft even scraped some samples off Itokawa and sent them back to Earth for analysis. It's a good thing we possess these potential asteroid-moving skills, Schweickart said, for they may save our bacon someday. Earth has been pummeled by many dangerous asteroids throughout its history, and there's no reason to think the barrage will stop in the future. Space rocks big enough to cause major damage and disruption to the global economy and society (were they to strike a populated area today) have hit Earth, on average, every 200 or 300 years, Schweickart said. Firing a weapon once every 300 years That bombardment rate is scarily frequent to anyone worried about the long-term survival of human civilization. But it's not nearly frequent enough to make asteroids good weapons of mass destruction, according to Schweickart. [5 Reasons to Care About Asteroids] "You're going to have an opportunity once every two or three hundred years to go up and have a weapon to hit Baghdad," Schweickart said. "Of course, the problem is that by that time, the Zambian space program is the world's premier space program, and Baghdad is a buddy of yours." Potential asteroid wranglers also wouldn't be able to direct a space rock just anywhere on Earth, he added. For the foreseeable future, we'll be able only to speed up or slow down an asteroid, moving it in an "east-west" direction along its trajectory. Moving it in the "north-south" plane is not an option. "If you do anything other than speed up or slow down the asteroid, it has almost no effect," Schweickart said. "You've got to go along that line; it's the only way physics lets you do it." So anyone wishing to asteroid-bomb the United States would have to manipulate a space rock whose trajectory already crossed American territory. The trick would be tweaking its velocity enough to ensure an impact on American soil. In practice, therefore, the wait for a suitable asteroid weapon could be considerably longer than 200 or 300 years. Protecting Earth Schweickart and other panelists argued that humanity will need to deflect a killer asteroid away from Earth someday. It would be a shame, they said, if unfounded fears about possible nefarious uses of asteroid-moving technology impeded its development. "The public perception of asteroids can be pretty scary," Schweickart said. "There's going to be a lot of scare stuff. It's already out there, it's going to get worse and that is going to be a very serious challenge that we on the technical side will have to deal with." People worried about death from above should focus their anxiety elsewhere, fellow panelist Bill Nye said. There are plenty of much more viable space weapons than asteroids already up there. "Space is already pretty weaponized," said Nye, executive director of the Planetary Society and former host of the science-themed TV show "Bill Nye the Science Guy." "The global positioning system that we all know and love was designed to guide weapons. So using an asteroid as a weapon is sort of coming late to the party."

#### Concede asteroid collisions cause extinction – means 0 impact to limited deflection because any asteroid collision wipes out humanity regardless of where the collision is so no war could emerge afterward

#### Satellites are crucial for large, industrial megafarms

Les Johnson 13, Deputy Manager for NASA's Advanced Concepts Office at the Marshall Space Flight Center, Co-Investigator for the JAXA T-Rex Space Tether Experiment and PI of NASA's ProSEDS Experiment, Master's Degree in Physics from Vanderbilt University, Popular Science Writer, and NASA Technologist, Frequent Contributor to the Journal of the British Interplanetary Sodety and Member of the American Institute of Aeronautics and Astronautics, National Space Society, the World Future Society, and MENSA, Sky Alert!: When Satellites Fail, p. 106

Agriculture

To feed the Earth's growing population affordably, farming has gone from a mostly decentralized, family-owned business to corporate farming on a scale never before imagined. These industrial megafarms are a primary reason that many people in the world can enjoy plentiful and varied foods at a reasonable cost. On this scale, deciding what crop to plant in a given field is not just business - it's science. And the science relies, in large part, on data from space.

Companies such as the Satellite Imaging Corporation (SIC) provide data from space on overall crop health, soil analysis, and irrigation impacts and efficiencies. From space, you can easily map soil variations, finding areas rich in organic matter and others less so - this allows optimized planting to take advantage of crops that thrive in any given soil environment. Very large farms also use satellite images to assess the overall health of their crops by land area, spotting those that are being impacted by non-optimal soil moisture content, etc., allowing the farmer to take corrective action while there is still time to save the crop.

#### Industrial ag’s unsustainable and causes extinction

Alice Friedemann 17, Systems Architect and Engineer For Over 25 Years, Science, Energy, and Agriculture Writer, Investigative Journalist and Energy Expert, Founder of Energy Skeptic, Author of When Trucks Stop Running: Energy and the Future of Transportation, “Chemical Industrial Agriculture is Unsustainable. Here’s Why”, Resilience, 5-27, http://www.resilience.org/stories/2017-03-27/chemical-industrial-farming-unsustainable-heres/

We hear a lot about how we’re running out of antibiotics. But we are also doomed to run out of pesticides, because insects inevitably develop resistance, whether toxic chemicals are sprayed directly or genetically engineered into the plants.

Worse yet, weeds, insects, and fungus develop resistance in just 5 years on average, which has caused the chemicals to grow increasingly lethal over the past 60 years. And it takes on average eight to ten years to identify, test, and develop a new pesticide, though that isn’t long enough to discover the long-term toxicity to humans and other organisms.

And this devil’s bargain hasn’t even provided most of the gains in crop yields, which is due to natural-gas and phosphate fertilizers plus soil-crushing tractors and harvesters that can do the work of millions of men and horses quickly on farms that grow only one crop on thousands of acres.

Yet before pesticides, farmers lost a third of their crops to pests, after pesticides, farmers still lose a third of their crops.

Even without pesticides, industrial agriculture is doomed to fail from extremely high rates of soil erosion and soil compaction at rates that far exceed losses in the past, since soil couldn’t wash or blow away as easily on small farms that grew many crops.

But pest killing chemicals are surely accelerating the day of reckoning sooner rather than later. Enormous amounts of toxic chemicals are dumped on land every year — over 1 billion pounds are used in the United State (US) every year and 5.6 billion pounds globally (Alavanja 2009).

This destroys the very ecosystems that used to help plants fight off pests, and is a major factor biodiversity loss and extinction.

Evidence also points to pesticides playing a key role in the loss of bees and their pollination services. Although paleo-diet fanatics won’t mind eating mostly meat when fruit, vegetable, and nut crops are gone, they will not be so happy about having to eat more carbohydrates. Wheat and other grains will still be around, since they are wind-pollinated.

Agricultural chemicals render land lifeless and toxic to beneficial creatures, also killing the food chain above — fish, amphibians, birds, and humans (from cancer, chronic disease, and suicide).

Surely a day is coming when pesticides stop working, resulting in massive famines. But who is there to speak for the grandchildren? And those that do speak for them are mowed down by the logic of libertarian capitalism, which only cares about profits today. Given that a political party is now in power in the U.S. that wants to get rid of the protections the Environmental Protection Agency (EPA) and other agencies provide, may make matters worse if agricultural chemicals are allowed to be more toxic, long-lasting, and released earlier, before being fully tested for health effects.

Meanwhile chemical and genetic engineering companies are making a fortune, because the farmers have to pay full price, since the pests develop resistance long before a product is old enough to be made generically. Except for glyphosate, but weeds have developed resistance. Predictably.

In fact, the inevitability of resistance has been known for nearly seven decades. In 1951, as the world began using synthetic chemicals, Dr. Reginald Painter at Kansas State University published “Insect Resistance in Crop Plants”. He made a case that it would be better to understand how a crop plant fought off insects, since it was inevitable that insects would develop genetic or behavioral resistance. At best, chemicals might be used as an emergency control measure.

Farmers will say that we simply must carry on like this, there’s no other choice. But that’s simply not true.

Consider the corn rootworm, that costs farmers about $2 billion a year in lost crops despite spending hundreds of millions on chemicals and the hundreds of millions of dollars chemical companies spend developing new chemicals.

To lower the chances of corn pests developing resistance, corn crops were rotated with soybeans. Predictably, a few mutated to eat soybeans plus changed their behavior. They used to only lay eggs on nearby corn plants, now they disperse to lay eggs on soybean crops as well. Worse yet, corn is more profitable than soy and many farmers began growing continuous corn. Already the corn rootworm is developing resistance to the latest and greatest chemicals.

But the corn rootworm is not causing devastation in Europe, because farms are smaller and most farmers rotate not just soy, but wheat, alfalfa, sorghum and oats with corn (Nordhaus 2017).

Before planting, farmers try to get rid of pests that survived the winter and apply fumigants to kill fungi and nematodes, and pre-emergent chemicals to reduce weed seeds from emerging. Even farmers practicing no-till farming douse the land with herbicides by using GMO herbicide-resistant crops. Then over the course of crop growth, farmers may apply several rounds of additional pesticides to control different pests. For example, cotton growers apply chemicals from 12 to 30 times before harvest.

Currently, the potential harm is only assessed for 2 to 3 years before a permit is issued, even though the damage might occur up to 20 years later.

Although these chemicals appear to be just like antibiotics, that isn’t entirely true. We develop some immunity to a disease after antibiotics help us recover, but a plant is still vulnerable to the pests and weeds with the genetics or behavior to survive and chemical assault.

Although there are thousands of chemical toxins, what matters is how they kill, their method of action (MOA). For herbicides there are only 29 MOAs, for insecticides, just 28. So if a pest develops resistance to one chemical within an MOA, it will be resistant to all of the thousands of chemicals within that MOA.

The demand for chemicals has also grown due the high level of bioinvasive species. It takes a while to find native pests and make sure they won’t do more harm than good. In the 1950s there were just three main corn pests. By 1978 there were 40, and they vary regionally. For example, California has 30 arthropods and over 14 fungal diseases to cope with.

When I was learning how to grow food organically back in the 90s, I remember how outraged organic farmers were that Monsanto was going to genetically engineer plants to have the Bt bacteria in them. This is because the only insecticide organic farmers can use is Bt bacteria, because it is found in the soil. It’s natural. Organic farmers have been careful to spray only in emergencies so that insects didn’t develop resistance to their only remedy. Since 1996, GMO plants have been engineered to have Bt in them, and predictably, insects have developed resistance. For example, in 2015, 81% of all corn was planted with genetically engineered Bt. But corn earworms have developed resistance, especially in North Carolina and Georgia, setting the stage for damage across the nation. Five other insects have developed resistance to Bt as well.

GMO plants were also going to reduce pesticide use. They did for a while, but not for long. Chemical use has increased 7% to 202,000 tons a year in the past 10 years.

Resistance can come in other ways than mutations. Behavior can change. Cockroach bait is laced with glucose, so cockroaches that developed glucose-aversion now no longer take the bait.

It is worth repeating that chemicals and other practices are ruining the long-term viability of agriculture. Here is how author Dyer explains it:

“Ultimately the practice of modern farming is not sustainable” because “the damage to the soil and natural ecosystems is so great that farming becomes dependent not on the land but on the artificial inputs into the process, such as fertilizers and pesticides. In many ways, our battle against the diverse array of pest species is a battle against the health of the system itself. As we kill pest species, we also kill related species that may be beneficial. We kill predators that could assist our efforts. We reduce the ecosystem’s ability to recover due to reduced diversity, and we interfere with the organisms that affect the biogeochemical processes that maintain the soils in which the plants grow.

Soil is a complex, multifaceted living thing that is far more than the sum of the sand, silt, clay, fungi, microbes, nematodes, and other invertebrates. All biotic components interact as an ecosystem within the soil and at the surface, and in relation to the larger components such as herbivores that move across the land. Organisms grow and dig through the soil, aerate it, reorganize it, and add and subtract organic material. Mature soil is structured and layered and, very importantly, it remains in place. Plowing of the soil turns everything upside down. What was hidden from light is exposed. What was kept at a constant temperature is now varying with the day and night and seasons. What cannot tolerate drying conditions at the surface is likely killed. And very sensitive and delicate structures within the soil are disrupted and destroyed.

Conventional tillage disrupts the entire soil ecosystem. Tractors and farm equipment are large and heavy; they compact the soil, which removes air space and water-holding capacity. Wind and water erosion remove the smallest soil particles, which typically hold most of the micronutrients needed by plants. Synthetic fertilizers are added to supplement the loss of oil nutrients but often are relatively toxic to many soil organisms. And chemicals such as pre-emergents, fumigants, herbicides, insecticides, acaricides, fungicides, and defoliants eventually kill all but the most tolerant or resistant soil organisms. It does not take long to reduce a native, living, dynamic soil to a relatively lifeless collection of inorganic particles with little of the natural structure and function of undisturbed soil”.

When I told my husband all the reasons we use agricultural chemicals and the harm done, my husband got angry and said “Farmers aren’t stupid, that can’t be right!”

I think there are a number of reasons why farmers don’t go back to sustainable organic farming.

First, there is far too much money to be made in the chemical herbicide, pesticide, and insecticide industry to stop this juggernaut. After reading Lessig’s book “Republic, Lost”, one of the best, if not the best book on campaign finance reform, I despair of campaign financing ever happening. So chemical lobbyists will continue to donate enough money to politicians to maintain the status quo. Plus the chemical industry has infiltrated regulatory agencies via the revolving door for decades and is now in a position to assassinate the EPA, with newly appointed Scott Pruitt, who would like to get rid of the EPA.

Second, about half of farmers are hired guns. They don’t own the land and care about passing it on in good health to their children. They rent the land, and their goal, and the owner’s goal is for them to make as much profit as possible.

Third, renters and farmers both would lose money, maybe go out of business in the years it would take to convert an industrial monoculture farm to multiple crops rotated, or an organic farm.

Fourth, it takes time to learn to farm organically properly. So even if the farmer survives financially, mistakes will be made. Hopefully made up for by the higher price of organic food, but as wealth grows increasingly more unevenly distributed, and the risk of another economic crash grows (not to mention lack of reforms, being in more debt now than 2008, etc).

Fifth, industrial farming is what is taught at most universities. There are only a handful of universities that offer programs in organic agriculture.

Sixth, subsidies favor large farmers, who are also the only farmers who have the money to profit from economies of scale, and buy their own giant tractors to farm a thousand acres of monoculture crops. Industrial farming has driven 5 million farmers off the land who couldn’t compete with the profits made by larger farms in the area.

But farmers will have to go organic whether they like it or not

It’s hard to say whether this will happen because we’ve run out of pesticides, whether from resistance or a financial crash reducing new chemical research, or whether peak oil, peak coal, and peak natural gas will cause the decline of chemical farming. Agriculture uses about 15 to 20% of fossil fuel energy, from natural gas fertilizer, oil-based chemicals, farm vehicle and equipment fuel, the agricultural cold chain, distribution, packaging, refrigeration, and cooking to name a few of the uses.

At some point of fossil decline, there won’t be enough fuel or pesticides to continue business as usual.

Farmers will be forced to go organic at some point. Wouldn’t it be easier to start the transition now?

#### Loss of satellites shuts down drones

Daniel Ventre 11, Engineer for CNRS and Researcher for CESDIP, Cyberwar and Information Warfare, p. 198-199

The introduction of cyberspace operations is part of a specific context; a major evolution in the operation environment and the nature of the conflicts, which make irregular wars the rule, and make regular actors the exception to the rule. But the battle against unconventional, non-state governed, irregular actors raises specific problems: there are multiple actors, unpredictable at that, who do not abide by the same rules. New orders in conflicts are imposing the implementation of an ever more important need for information, and information collection and processing. Networks now have an incredible importance. The document refers to the growing threats against American heritage: the USA is a target and the increasing amount of attacks against their networks is indeed the proof of this. There are many obstacles which need to be removed before they can achieve real superiority and freedom to act, especially as vulnerable points may originate within the very operations of the armed forces. An example of this is the vulnerability of using products (software and hardware), commercial products (off-the-shelf), and sometimes even foreign products123. This brings to mind the fact that the US Air Force uses commercial, even foreign, applications for its cyberspace operations.

Information space extends to space124, particularly via communication and observation satellites125. Satellites are the keystone to the cyberspace and communication systems, but also the security system: monitoring (Echelon network is the symbol), observation, communication. These are at the heart of the C4ISR systems, without which a concept such as network-centric warfare could not exist. There would be no drones without satellites. It is even a question of extending the Internet to extra-atmospheric space. Projects in this vein (Interplanetary Networks) were being formed in the 1990s, but ran into several technical difficulties (delays in important transmissions due to high distances and costs) [GEL 06]. NASA dedicates a few pages on its website to this project126. The development of communication systems based on the infrastructures in extra-atmospheric space will also raise questions for legal, geopolitical and geostrategic domains: questions of seizing this space, questions of regulation of human activity in this space, of sovereignty, new territoriality and independence.

#### Drone prolif is inevitable and causes global nuclear war

Dr. Michael C. Horowitz 19, Professor of Political Science at University of Pennsylvania, NDT Champion from Emory University, PhD in Government from Harvard University, Adjunct Senior Fellow at the Center for a New American Security, “When Speed Kills: Autonomous Weapon Systems, Deterrence, and Stability”, 5/2/2019, https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3348356

Thus, the reason to deploy autonomous systems would have to be their reliability and effectiveness rather than signaling. And giving up human control to algorithms in a crisis that could end with global nuclear war would require an extremely high level of perceived reliability and effectiveness. Few things are more important to militaries in crisis situations than informational awareness and control over decisions, and there might be fear that autonomous systems are prone to accidents.

This counterfactual illustrates that the development and deployment of lethal autonomous weapon systems by national militaries, if it occurs, is unlikely to have simple, easy, and linear consequences. Instead, human factors, including the psychological desire for control and organizational politics, will strongly shape how militaries think about developing and using LAWS. This will not just influence the potential for arms races in peacetime, but deterrence and wartime stability due to the organizational processes militaries implement for the deployment and use of autonomous systems on the battlefield.

This paper draws on research in strategic studies and examples from military history to assess how LAWS could influence the development and deployment of military systems, including arms races, crisis stability, and wartime stability, especially the risk of escalation. It also discusses the potential for arms control. It focuses on these questions through the lens of key characteristics of LAWS, especially the potential for increased operational speed and, simultaneously, less human control over battlefield choices. One of the primary attractions of autonomous systems, even compared to remotely piloted systems, is the potential to operate at machine speed. Another potential benefit is the possibility of machine-like accuracy in following programming, but that comes with a potential downside: the loss of control and the accompanying risk of accidents, adversarial spoofing, and miscalculation. Even if LAWS malfunction at the same rate as humans in a given scenario, the ability of operators to control the impact of those malfunctions may be lower, which could make LAWS less predictable on the battlefield. The paper then examines how these issues interact with the large uncertainty parameter associated with AI-based military capabilities at present, both in terms of the range of the possible and the opacity of their programming.

The results highlight several critical issues surrounding the development and deployment of LAWS.1 First, the desire to fight at machine speed with autonomous systems, while making a military more effective in a conflict, could increase crisis instability. As countries fear losing conflicts faster, it will generate escalation pressure, including an increased incentive for first strikes. Second, in addition to the actual risk of accidents and miscalculation from LAWS, the fear of accidents and losing control of autonomous systems could limit the willingness of militaries to deploy them, particularly since many militaries are conservative when it comes to emerging technologies and have high standards for system reliability. Third, the dual-use, or even general purpose, character of the basic science underlying many autonomous systems will make the technology hard to control, giving many countries and actors access to basic algorithms, though whether this is described as diffusion, proliferation, or an arms race will depend on political dynamics as much as anything.

Finally, multiple uncertainty parameters concerning lethal autonomous weapon systems could exacerbate security dilemmas.

Uncertainty over the range of the possible concerning the programming of lethal autonomous weapon systems will increase fear of those systems in the near term, making restraint less likely for competitive reasons. Moreover, the inherent differences between remotely piloted systems and LAWS at the platform level come from software, not hardware. There is arguably an inherent opacity to lethal autonomous weapon systems. If an arms race over lethal autonomous weapon systems occurs, it will likely be because of worse-case assumptions about capability development by potential adversaries.

What is Autonomy or Artificial Intelligence?

Artificial intelligence is the use of computing power, in the form of algorithms, to conduct tasks that previously required human intelligence.2 Artificial intelligence in this context is best thought of as an umbrella technology or enabler, like the combustion engine or electricity. Military applications of artificial intelligence are potentially broad – from image recognition for surveillance to more efficient logistics to battle management.3 These include both non-kinetic applications, including in the cyber realm, as well as kinetic applications.4 One potential application of artificial intelligence is through armed autonomous systems that could be deployed on the battlefield, or what are most popularly called lethal autonomous weapon systems or lethal autonomous weapon systems. This differs from remotely-piloted systems where a human, though at a distance, still operates a given vehicle or system.

What is a lethal autonomous weapon system? While simple to describe on first glance, and easy to understand in the extreme – an armed humanoid robot with extremely broad programming making decisions about engaging in warfare – drawing the line between a lethal autonomous weapon system and other weapon systems is complex. In Directive 3000.09, published in 2012, the US Department of Defense defines an autonomous weapon as “A weapon system that, once activated, can select and engage targets without further intervention by a human operator.”5 What it means to select and engage a target is not entirely clear, however. For example, homing munitions, which have existed since World War II, select and engage targets, according to a common sense understanding of the terms.6

Exactly what functions are autonomous also matters. A system could have automatic piloting, for example, that flies or drives a platform to a target, but still have complete human control over the use of the weapon. That would be a system with a high level of automation, though not a lethal autonomous weapon system according to most perspectives. Heather Roff measures the level of autonomy in a weapon system based on three subcomponents: self-mobility, self-direction, and self-determination. This helps distinguish systems where there might be autonomy concerning the best way a missile should get to a target, but the target itself is designated by a person fromsystems where an algorithm might be making higher-level engagement decisions.7 There are already some applications of limited machine autonomy in military systems, with the most prominent example being the automatic mode present on many Close-In Weapon Systems (CIWS), such as the Phalanx, used to defend ships and incoming missiles from attack.8

This article will not resolve the definitional debate surrounding lethal autonomous weapon systems, which is still ongoing in meetings of the Group of Governmental Experts focused on lethal autonomous weapon systems in the United Nations Convention on Certain Conventional Weapons. Provisionally, this article adopts the Scharre and Horowitz definition that a lethal autonomous weapon system is “[A] weapon system that, once activated, is intended to select and engage targets where a human has not decided those specific targets are to be engaged.”9 However, moving beyond the close cases (e.g. particular types of missile guidance systems) and considering those weapon systems that clearly use machine intelligence to search for, select, and/or engage targets can help clarify what is at stake in this debate in the first place.10 After all, if most militaries most of the time would not have any need for lethal autonomous weapon systems, or those systems have significant disadvantages relative to remotely-piloted military robotics or soldiers on the battlefield, the stakes are lower. In contrast, if the integration of machine intelligence with military systems could give countries or violent non-state actors a significant advantage in how they employ force, it becomes even more crucial to engage the topic.

It is important to note that this article does not address concerns about existential risk related to artificial general intelligence – the fear that a superintelligence could decide to destroy the human race, either because it decides humans are malign or because humans program it to achieve a goal it can only accomplish by destroying humans.11 The existential risk issue associated with artificial intelligence is not necessarily closely coupled to military applications of artificial intelligence. If a super-intelligent machine learning system has the ability to take over human society in the interest of a goal – any goal – whether autonomous systems at much smaller orders of magnitude already exist in military systems will likely be unimportant. The super-intelligent system would simply create what it needed.

Why Invest in Autonomous Systems?

Militaries are already increasing their investments in remotely-piloted robotic systems. From UAVs such as the MQ-9 Reaper (United States) to uninhabited surface vehicles (USVs) such as the Guardium (Israel) to uninhabited ground vehicles (UGV) such as Platform-M (Russia), militaries around the world are investing in remotely piloted platforms, some of which can carry weapons. In these systems, human control over the use of force is not fundamentally different from the use of force with inhabited systems. In some cases, such as the MQ-9 Reaper, the sensor system a drone pilot uses to launch a weapon might even be the same sensor system a pilot in the cockpit of an inhabited fighter uses. Using remotely piloted systems gives militaries the ability to reduce the risk to their own soldiers while still projecting power in similar ways to how they used force previously.12 The first places militaries are likely to use kinetic lethal autonomous weapon systems include relatively “clear” environments such as air-to-air combat or naval combat, especially in geographic arenas where civilians are extremely unlikely to be present.13