## 1

### Theory

#### Interpretation – On the 2021-2022 NDCA LD Wiki, the aff must disclose all theory interpretations that have been read in the 1AR and 1AC in one cite box or open-source document.

#### Violation: they don’t.

Their Wiki: Insert Screenshot.

My Wiki:

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface

Description automatically generated with medium confidenceGraphical user interface, text, application

Description automatically generated

#### Standards:

#### 1 – Norming: (A) It’s impossible to go through 30 round reports before round and find which norms not to violate – only our model allows the negative to respect norms (B) Spillover – Disclosing shells allow for your norms to proliferate by letting debaters see what norms should be followed.

#### 2 – Substance ed – knowing interps you’ve read through disclosure allows me to meet them instead of forcing you to read a shell. Outweighs: (A) I would’ve abided by the theory interps you want me to, but I couldn’t (B) Time frame – we only have 2 months to talk about the topic.

**Fairness is a voter – Debate is a competitive activity that requires fairness for objective evaluation.**

#### Reject the team – (1) No argument to drop and (2) Strongest internal link to better norms through deterrence.

**No RVIs – (1) Going all in on theory kills substance education which outweighs on timeframe (2) Discourages checking real abuse which outweighs on norm-setting (3) Encourages theory baiting – outweighs because if the shell is frivolous, they can beat it quickly.**

#### Competing interpretations – (1) Reasonability is arbitrary – impossible to know what is reasonable until you establish a brightline (2) Bites judge intervention – they have to gut check what they think is good (3) Collapses – you use offense/defense to evaluate offense under the brightline (4) Norms – you can sidestep norms by selectively choosing a different brightline you meet every round.

#### Eval theory after the 2NR – Otherwise 2AR collapses on one arg for 3 minutes which skews the prep burden.

**1NC theory first – (1) If I was abusive, it was because the 1AC was (2) You have persuasive advantages in the 2AR on top of infinite prep time.**

## 2

#### Interpretation – Affirmatives must define *private entities* in a delineated card in the 1AC.

UpCounsel ND – “Private Entity: Everything You Need to Know”. UpCounsel (interactive online service that makes it faster and easier for businesses to find and hire legal help). No Date. Accessed 12/17/21. <https://www.upcounsel.com/private-entity> //Xu

A private entity can be a partnership, corporation, individual, nonprofit organization, company, or any other organized group that is not government-affiliated. Indian tribes and foreign public entities are not considered private entities.

Unlike publicly traded companies, private companies do not have public stock offerings on Nasdaq, American Stock Exchange, or the New York Stock Exchange. Instead, they offer shares privately to interested investors, who may trade among themselves.

Private Company vs. Private Entity

The Companies Act of 2013 governs the registration of private companies.

This type of company is formed by following the steps laid out by this law.

Private entities are determined not by this law but by ownership and holding. For example, sole proprietorships and partnerships are designed as private entities.

A private entity is not necessarily a private company, but all private companies are private entities.

How Private Entities Work

Although private companies can be of any size, they often include a small group of chosen investors who may include employees, colleagues, friends and family, and other interested parties. If this type of company needs funding to grow, it may seek it from venture capital firms or from large institutional investors. Some private companies eventually decide to go public with an initial public offering (IPO) of stock shares on a public exchange. Sometimes, public companies go private when a large investor buys a bulk of the outstanding stock shares and plans to remove them from public exchanges.

How FOIA Affects Private Entities

The Freedom of Information Act (FOIA) is a federal law that requires certain agencies to provide certain types of records to any person who asks. Major government bodies such as federal courts and Congress are exempt from FOIA. Some state agencies are also exempt depending on state laws governing public records. In general, FOIA applies to:

Federal, state, and local government agencies, such as the Federal Communications Commission.

Certain state legislatures depending on the laws in those states.

Most private entities are not bound by federal FOIA laws. However, these laws may apply to private entities involved in government business. This situation occurred in Colorado in 2000, when a nonprofit corporation was required by the state's Court of Appeals to share documents related to a project it was working on with the city of Denver.

**Prefer:**

#### 1 – Stable Advocacy – they can redefine in the 1AR to wriggle out of DAs which kills high-quality engagement – outweighs on reversibility since the 2NR can’t compensate after absurd 1AR shifts.

#### CX can’t resolve this because (A) Not flowed so it’s non-verifiable (B) Skews 6 min of prep during the AC which is irreciprocal (C) They can lie and no way to check (D) Debaters are trained by coaches to be shifty.

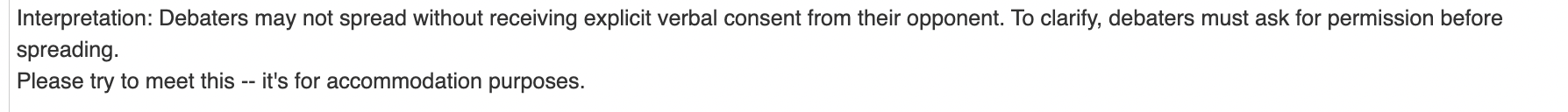
#### 2 – Real World – Policy makers must specify the entity that they are recognizing. It also means zero solvency – absent spec, private entities can circumvent since there is no delineated way to enforce the aff and means their solvency can’t actualize.

#### 3 – Resolvability – Constantly morphing advocacies makes debate impossible because the judge doesn’t know what you defend or if a DA even links – comes first because the judge has to pick a winner and loser.

#### Independently, P-Spec isn’t regressive since (1) Determines the scope of the AFF which is core topic lit (2) Novices specify details about the plan which proves it’s grounded in LD norms. Also, infinite regress tailors optimal norms which outweighs on duration.

## 3

#### Interpretation: Debaters may not spread without receiving explicit verbal consent from their opponent if requested on the wiki – they didn’t ask me.



#### Negate on Ableism – disabilities such as processing disorders can prevent debaters from processing words at 300+ WPM, and speech impediments can prevent debaters from spreading themself which means they’re at a structural disadvantage. Not all debaters want these accommodations, but it should be an option.

## 4

#### The Space Race is simulacra – the mythos of a distinction between institutional space flight and the market fuels the image-machine.

**Dickens and Ormrod 16** – Peter Dickens, Senior Research Associate in the Department of Sociology at the University of Cambridge, member of the Red-Green Study Group in London, James S Ormrod, Principal Lecturer in Sociology at the University of Brighton, 2016, “Introduction: The Production of Outer Space” in The Palgrave Handbook of Society, Culture and Outer Space, pp 5-6, footnote 4 included in curly braces

An argument can be made that ‘the space race’ – as a material technological project, as a discourse about the conquest of space, and as an imagined competition – clung on to the older conceptions of space that were being abandoned in so many other areas of social life (while, it should be noted, embracing some of the developments Kern identifies). The space race was historicized and spatialized by its protagonists, by academics, and by the public, in largely consensual terms on both sides of the iron curtain (‘consensual’ in the sense that all agreed on how the race was to be understood). Indeed, for Baudrillard (1994), this was one of the keys to understanding the space race. Its aim was not to put a man on the Moon. The Moon landings functioned as models of rational, calculated control, in relation to which all earthly activity was to become oriented. As in nuclear proliferation,4 ‘[t]heir truth is to be models of simulation, the model vectors of a system of planetary control (where even the superpowers of this scenario are not free – the whole world is satellized)’ (1994, p. 35). Viewed in this way, the space race was a conspiracy, albeit one that nobody had charge of.

{4. Baudrillard believed the space race played the same role as the Cold War arms race that preceded it. In his understanding, nuclear deterrence was not aimed at containing a real threat from the other side, just as the aim of the space race was not to put a man on the Moon. Rather, the former represented a pretext ‘for installing a universal security system whose deterrent effect is not at all aimed at an atomic clash … but, rather, at the much greater probability of any real event, of anything that would be an event in the general system and upset its balance’ (p.33). Baudrillard sees the Cold War and space race as taking place in the cause of rationalization of the world and the exclusion of pre-modern forms: ‘[B]ehind this simulacrum of fighting to the death and of ruthless global stakes, the two adversaries are fundamentally in solidarity against something else, unnamed, never spoken, but whose objective outcome in war, with the equal complicity of the two adversaries, is total liquidation. Tribal, communitarian, precapitalist structures, every form of exchange, of language, of symbolic organization, that is what must be abolished, that is the object of murder in war – and war itself, in its immense, spectacular death apparatus, is nothing but the medium of this process of the terrorist rationalization of the social – The murder on which sociality will be founded, whatever its allegiance, Communist or capitalist’ (p.37)}

Because of this conspiracy, there now exists a standard account of the space race, and of the history of the American space programme. Histories of the Soviet programme are still being produced (see, for example, Siddiqi, 2010), but these do not necessarily challenge this standard account. A very condensed account runs as follow. Wernher von Braun, the Nazi rocket scientist, had been taken back to the United States in 1945 as part of Operation Paperclip, to later use what he had learnt working on the V-2 in the services of the American space programme. The launch of Sputnik in 1957 by the Soviet Union had shocked the United States. Eisenhower had then created NASA in 1958, and Kennedy had announced the decision to send a human to the Moon in 1962 in the wake of the embarrassment of the Bay of Pigs invasion. The United States had beaten the Soviet Union to the Moon by 1969.5

Kennedy (1962) had attempted to assert that the reasons for conquering space were noble and involved ‘new knowledge to be gained and new rights to be won … for the progress of all people’. However, he also made it clear that it was crucial for America to secure these victories. It was meant to be understood that the space race was intimately connected with the Cold War, although academics disagreed about exactly how (see Dickens & Ormrod, 2007b). The space race was nonetheless about the extension of the space of the nation state, whether this was physical space or the space of national prestige. It was also well understood that the space race, civilian and military, had to do with the proper or improper ‘meshing’ of the spaces of government, business and politics (see Chapter 3 by Wills, this volume). The existence of a military-industrial complex of some kind is widely accepted, even if historians and social scientists have been left arguing about which interests were the most significant (see, for example, Baran & Sweezy, 1966).

#### This reinforces technological forms and refashions a new space race headed by the government.

**Dickens and Ormrod 16** – Peter Dickens, Senior Research Associate in the Department of Sociology at the University of Cambridge, member of the Red-Green Study Group in London, James S Ormrod, Principal Lecturer in Sociology at the University of Brighton, 2016, “Conclusion: The Future of Outer Space” in The Palgrave Handbook of Society, Culture and Outer Space, pp 446-449

An argument can be made that the conquest of outer space has represented the ultimate victory of abstract space (see also Shaw, 2008, p. 115). Any meaningful distinction between terrestrial space and the rest of the cosmos has been eroded. This is not to say that the whole of outer space has been humanized, which of course it has not, but that space has come to be reconceptualized and re-experienced as a space for accumulation like any other. It is a space thoroughly colonized by terrestrial knowledge and practice (whether considered primarily capitalist, male, white or anything else).

For Benjamin and a host of others (from Klerkx, 2005, to Parker, 2009), the disinvestment in outer space exploration and development came as a result of the bureaucratization of NASA, and its engulfment within the military-industrial complex. With the development of the International Space Station (ISS) and the Space Shuttle (which according to some accounts were each the rationale for the development of the other), space exploration became routine and unexciting. Nothing fundamentally new appeared to be happening in space. Whether or not this is seen as true depends a great deal on perspective. Even if NASA budgets were being cut, this volume has hopefully made clear that a great deal was still happening in space. New space technologies continued to be developed, and these technologies were being integrated into terrestrial life in innumerable ways. But we believe it is also true (and this has been the emphasis of our work elsewhere, see Dickens and Ormrod, 2007) that these developments represent the continuation of terrestrial power relations and social dynamics. Space development is, to put it one way, business as usual. And crucially, any novelty to these developments was undermined by the representation of outer space in similar terms to the representation of terrestrial space. As evidenced in this book, political scientists, geographers and legal scholars had begun to talk about outer space as a knowable, if not actually known, space. The origins of this representation of space can be traced to Copernicus (MacDonald, 2009) and/or Kepler (Zubrin, 1996). But with the routinization of outer spatial practices (from increasing launch rates to the proliferation of satellite-receiving terminals, to the everyday use of satellite services to underpin military operations, communications, entertainment, navigation and so on), these representations were made manifest in the creation of a new social space.

The central problem with the final victory of abstract space was that it obliterated the very ‘absolute spaces’ on which it was founded, and from which it derived its emotional appeal. It is in a way surprising that the development of modern spaceflight was from its inception anchored in a religious or spiritual cosmology. This was true of both Russian and American contexts (see also Geppert, 2007, p. 599). The Russian programme has long roots in the tradition of Russian cosmism (Kohonen, 2009; Siddiqi, 2010). And, as Pop notes, Richard Nixon said to the Apollo 11 astronauts; ‘Because of what you have done, the heavens have become a part of man’s world.’ Pop goes on:

‘Are we today turning mythology into fact?’ – asked Joseph Campbell on the occasion of the Apollo programme. The astronauts walked on the real astronomical moon, as it was; but they walked on the mythical moon of each culture, as thought to be, as imagined. Their trip was physical and metaphysical. They walked through different cosmogonies; through different models of the universe.

(Pop, 2012, personal communication, see also ‘High Flight: A Spiritual History of the Space Age’, in preparation)

This continued relationship was not coincidental. As a number of contributions here show, the appeal of outer space lay in the promise of conquering the wondrous or Godly and hence the elevation of the status of humanity (or, rather more specifically, white men). This is not necessarily that dissimilar to the process Sims describes in his chapter, whereby myths ‘record time’. Ormrod illustrates this in his chapter through analysis of Tsiolkovsky’s science fiction in which the best human beings are able to fly like angels in space. As Kilgore notes in his chapter, Carl Sagan owed his continued appeal to his simultaneous reproduction of wonder as well as knowledge. The British celebrity cosmologist Brian Cox (see Mellor, this volume, for more on him) has arguably taken this even further, such that his popular shows and writing dedicate more time to what is unknown than to knowledge itself. These lacunae became spaces for wild imaginative projects – projects more captivating than any empirical knowledge. It is no wonder that the continued disenchantment and re-enchantment of the universe have become a major theme in recent work. Based largely on studies of astronauts’ experiences, Kilbryde (2015) argues that space exploration can potentially be a means of overcoming the dualism through which outer space is constructed as an object, and thus of experiencing unity. This is provided that the sense of awe and wonder it engenders is not sought as a ‘possession’ of the individual or as something to be subsequently rationalized.

It is the invocation of obstacles that produces space as something potentially unconquerable, and hence worth conquering. And yet the obliteration of the irrational or wondrous sweeps the ground from underneath such a project. To the extent that outer space has become an abstract space, it has been foreclosed as a frontier. It is a frontier, but a frontier without a future. In removing the possibility of an elsewhere, it serves only to secure terrestrial hegemony. In their own ways, both Baudrillard and Virilio present such a view of outer space. For Baudrillard, it was in any case a frontier that served as a model for terrestrial life, which set the permissible limits for struggle and confrontation within it. He concludes,

Through the orbital inscription of a spatial object, it is the planet earth that becomes a satellite, it is the terrestrial principle of reality that becomes eccentric, hyperreal, and insignificant. Through the orbital installation of a system of control like peaceful coexistence, all the terrestrial microsystems are satellized and lose their autonomy. (p. 35)

Everyone on Earth is neutralized and homogenized. The proliferation of space technology since he was writing, and the blurring of civilian and military technologies, has only broadened the potential of such an understanding. Parks and Schwoch (2012, p. 4), in the context of the ‘satellization’ of global security, refer to the satellites as ‘the ultimate rationalization and instrumentalization of the quest for global security and domination’.

For Virilio, there was such a homology between the technologies of war, the image of space as a battlefield and the political discourses about space that the future seemed equally foreclosed. He makes the claim that any space is constituted ‘from the outside’ (cited in Bormann, 2009, p. 80). That is to say, it is perceived on the basis of that which precedes it. Bormann is therefore able to argue that ‘nothing about outer space is “out there”, what we get to know about outer space is always socially, spatially and locally embedded’ (p. 80). Bormann, following Virilio, seems to believe that this is especially true of the vacuum of outer space:

[O]ther than the view there is no physical or physiological contact. No hearing, no feeling in the sense of touching materials, with the exception of an actual Moon landing. Thus the conquest of space, of outer space – isn’t it more the conquest of the image of space?

(Virilio & Ujica, 2003, cited in Bormann, 2009, p. 84)

Bormann reaches the pessimistic conclusion that ‘the perpetuation of outer space as a sphere of permanent war and its claims to weaponization will soon make no alternative possible’ (p. 84). This is the product, in the large part, of her assumption that ‘[w]hat we get to know about the space of outer space is dominated by information provided through the possibilities (and limits) of military technology’ (p. 81).

#### This culminates in unending war and environmental catastrophe.

Craven 19 [Matt Craven (Professor of International Law, SOAS University of London, United Kingdom). “‘Other Spaces’: Constructing the Legal Architecture of a Cold War Commons and the Scientific-Technical Imaginary of Outer Space”. European Journal of International Law, Volume 30, Issue 2, May 2019, Pages 547–572, Accessed 1/12/22. <https://academic.oup.com/ejil/article/30/2/547/5536739> //Xu]

Even in the aftermath of the pronounced ‘closure’ of the Cold War, the residue of the formation that was brought into play in space remains very much with us today. On the one hand, outer space has been progressively enveloped within the technological infrastructure of warfare and policing actions – the first Gulf War of 1990 ushering in a new era of ‘smart’ weaponry and GPS-configured surgical violence139 – anticipating, in the process, the ‘remote’ operations of the drone and cyber warfare of the contemporary era. The blurring of the demarcation between the (outer space) technologies of war and peace finds its contemporary parallels in the collapse of a range of other operative distinctions – between the virtual and the real, the combatant and the civilian, the battlefield and the battle space, the interstate and the intra-state. The juridical formations on which these depend, furthermore, have themselves become enveloped within the same strategic operations – ‘lawfare’ becoming the adjunct to a new form of totalized warfare stripped of any spatial determinacy. On the other side, outer space has increasingly become the terrain of speculative capitalism, which, following the growth of space tourism (pioneered by the Russian space administration in the 1990s140), has seen the active development of a range of commercial projects from the construction of sub-orbital ‘space planes’ to asteroid and lunar mining undertaken by both public and private agencies. The imaginative resources for such projects have come from various directions, but a common theme is that impending resource depletion on earth will soon bring such resources within commercial and technological reach, and that outer space will therefore provide a ‘spatial fix’ for a system of global capitalism that might otherwise run into the ground.141 There is, as Katarina Damjanov has noted,142 a deep parallelism here between the juridical opening of the seas (mare liberum), which served to stabilize the system of sovereignty within Europe in the 17th century by extroverting the site of conflict and competition,143 and the opening of outer space three centuries later as another prophylactic measure, even if, in this case, that which was to be guarded against was a planetary-wide, environmental catastrophe. Perhaps the deepest irony, here, is that the mode of salvation on offer is precisely the same as that which is the extant cause of crisis, which one may take to be a remorseless instrumentalization of nature.

#### Vote neg to view the space race as spectacle – anything else plays into the military industrial complex.

Shapiro 14– Alan, senior lecturer at the Offenbach Art and Design University in Germany, “Jean Baudrillard and Albert Camus on the Simulacrum of Taking a Stance on War”, IJBS Volume 11, Number 2 (May 2014), Special Issue: Baudrillard and War

Unlike other thinkers such as Noam Chomsky or Chris Hedges (whose positions are highly valuable in their own right), Jean Baudrillard is not ‘against war’. Baudrillard’s position is rather that of being ‘neither for nor against’ contemporary hyper-real mediatized wars, and seeing the imperative of choosing whether one is ‘for’ or ‘against’ war as being something of a forced and imposed simulacrum. To say that one is ‘against’ a specific war, or even all wars, would be to implicitly acknowledge the ‘reality’ of war(s), which have, to the contrary, drifted increasingly into the fakeness of virtuality, simulation, and an indeterminate hyperspace. Baudrillard, in his orientation of being ‘neither for nor against’ war, finds a strong predecessor in another great writer and thinker who wrote in French: Albert Camus. In his political theory and activist engagements, Camus was an independent hybrid anarchist-liberal (the very notion of hybrid, with which one can retrospectively illuminate Camus’ politics, has only emerged as a well-known concept in recent times, in the wake of, for example, Donna Haraway’s cyborg theory). Camus was a serious thinker who – like Plato, Nietzsche, Baudrillard, Deleuze and Philip K. Dick – had deep insights into the genealogy of image-making simulacra in and of Western culture. As a major figure of twentieth century French intellectual history, Albert Camus appears now in retrospect to have been way ahead of his time in his positions on ethics, aesthetics, virtuality, and political philosophy. The intention of this essay is not to claim that Baudrillard and Camus had ‘the same position’ on war or on simulacra. It is, rather, to make an initial attempt to outline important affinities between the two thinkers, hinting at a sort of ‘alliance’ between these two intellectual figures which has not been previously articulated in the academic literature in Baudrillard or Camus studies. The essay indicates certain key starting points for substantiating the affinity/alliance, but it should also be read in the spirit of suggesting fruitful directions for future research. The stance of opposition to a war undertaken by America’s ’military-industrial complex’ (MIC), as President Dwight D. Eisenhower termed it in his Farewell Address to the nation on January 17, 1961 after spending 8 years as President, seems to be based on the assumption of the discursive viability of projecting oneself into the imaginative space of being a sort of ‘shadow government of truth-speakers’, empowered by democracy into the democratic position of being able to make ‘better’ decisions for the body politic of democracy than those who hold institutional power in political economy and government. Most political discourse in the U.S., including the anti-war stance, seems to take for granted the idea that we should clarify ‘our politics’ by imaginatively putting ourselves ‘in the shoes’ of national strategists choosing among the policy options available. Jean Baudrillard expands our sense of what is history because he does not operate with a strict separation between what are ‘the facts’ and what are the engaging stories that we as a culture have written and enacted about important ‘historical’ events. Much of what we know about the Holocaust, the Second World War, and the Vietnam War comes from Hollywood films about the Holocaust, the Second World War, and the Vietnam War that we have seen. In his essay on Francis Ford Coppola’s 1979 blockbuster Vietnam War movie Apocalypse Now, Baudrillard writes that Coppola’s masterpiece is the continuation of the Vietnam War by other means. “Nothing else in the world smells like that,” says Lt. Colonel Bill Kilgore – played by Robert Duvall – in the 2 hour and 33 minute film. “I love the smell of napalm in the morning… It smells like victory.” The high-budget extravaganza was produced exactly the same way that America fought in Vietnam, says Jean Baudrillard of the film made by director Francis Ford Coppola (Baudrillard 1981: 89-91). “War becomes film,” Baudrillard writes of Coppola’s spectacularly successful cinematic creation. “Film becomes war, the two united by their shared overflowing of technology” (Ibid.: 89). There is implosion or mutual contamination between ‘film becoming Virtual Reality’ and War. Think also of Steven Spielberg’s Saving Private Ryan (1998): total immersion in the Virtual Reality of combat – an aesthetics of VR different from ‘critical distance’ – as a new kind of ‘testimonial position’ with respect to war and atrocities. In Vietnam-slash-Apocalypse Now, War is a Drug Trip and a God Trip, a psychedelic and pornographic carnival (Baudrillard 2010), a savage cannibalism practiced by the Christians, a film before the shooting and a shoot before the filming, a vast machine of excessive special effects, a ‘show of power’, a territorial lab for testing new weapons on human guinea pigs, and the sacrificial jouissance of throwing away billions of dollars – all these aspects alluded to or mentioned by Baudrillard. Coppola’s film, according to Baudrillard, is the carrying on of an undeclared, unfinished and unending War. An interminable Heart of Darkness. Jean Baudrillard is not ‘against war’, not even against specific wars like the wars in Afghanistan and Iraq. He says this explicitly in “Le masque de la guerre,” published in the Parisian daily newspaper Libération, just prior to President George W. Bush’s invasion of Iraq in 2003. Ni pour ni contre. Neither for nor against. “This war is a non-event,” writes Baudrillard, “and it is absurd to take a stance on a non-event (Baudrillard 2003).” The non-events of the Iraq War and the War on Terror opposed themselves to the event of September 11th, 2001. Baudrillard’s two most explicit texts about war are The Gulf War Did Not Take Place (1991), written just before, during, and just after the Persian Gulf War of 1991 that was initiated by President George H.W. Bush, and The Spirit of Terrorism (2002), written just after 9/11. At the very beginning of the essay “The Gulf War Will Not Take Place,” the first of the three essays that comprise The Gulf War Did Not Take Place, Baudrillard explains that non-war – which is what the military-industrial complex or the (non-)war machine has become very adept at carrying out in the age of virtuality – “is characterised by that degenerate form of war which includes hostage manipulation and negotiation (Baudrillard 1995: 24). The Eisenhower-coined term of the military-industrial complex is used by Baudrillard in his essay "No Reprieve For Sarajevo," published in Libération, January 8, 1994. He sees the MIC as still operative yet in need of conceptual upgrading. “Hostages and blackmail,” Baudrillard continues in “The Gulf War Will Not Take Place,” “are the purest products of deterrence. The hostage has taken the place of the warrior. He has become the principal actor, the simulacral protagonist, or rather, in his pure inaction, the protagoniser (le protagonisant) of non-war” (Baurillard 1995: 24). And we, the television viewers of the non-war, are all in the situation of hostages, “all of us as information hostages on the world media stage” (Ibid.). Hostages of the screen, of the intoxication of the media, dragged and drugged into a logic of deterrence, "we are no longer in a logic of the passage from virtual to actual but in a hyperrealist logic of the deterrence of the real by the virtual” (Ibid.: 27). The post-structure [the successor to a sociological structure with less stability and with less of a center] of the (non-)war machine in the age of media virtuality has properties of binary/digital, simulation/modeling, viral metastasis, and complex intricate paradoxical topology. Let us consider all four of these properties as aspects of a Baudrillardian theory of war (or a theory of war in honour of Jean Baudrillard). First of all, the post-structure of the (non-)war machine in the age of media virtuality has the property of binary/digital. It presents itself to us through the dualistic structure of a forced binary choice, where the system obliges each of us to take a position ‘for’ or ‘against’ war, or ‘for’ or ‘against’ particular wars, as waged, for example, by the Pentagon, the EU ‘humanitarian’ forces, or the surveillance state’s War on Terror. It is this very binary logic of ‘yes’ or ‘no’ that is the news media discourse, the rhetoric of politicians, and the hybrid virtual-and-real-killing of the screen and the bomb. Today, of course, the Internet has superceded television as the prevailing universal media (although there is much convergence and combination of the two). And the Internet is much more interactive and participatory. There is much more response. There is much less of a ‘spectacle’ than there was when Guy Debord and the Situationists conceptualized their media theory in the 1960s. Yet everywhere that the ‘news media’ and the (non)-war machine still prevail, everywhere that they are still massively influential, everywhere that they still exercise their power, we are not quite liberated from the ‘speech without response’ described by the early Baudrillard. When Muammar Gaddafi, the former dictator of Libya, was brutally killed by rebel forces on October 20, 2011, during the Libyan Civil War, the event, having been filmed by a cell phone, was presented to worldwide viewers by almost all of the ‘news media’ as some kind of triumph for ‘justice’, even though it was clearly a loss for democratic principles and the possible coming to light of priceless information about the decades of atrocities committed by Gaddafi’s regime during a public trial which would never take place.

## 5

#### Vote neg even if they win their advantage – they shouldn’t win the ballot for proving that private appropriation is unjust through Util.

#### The 1AC is an activist game – they trade violence for points and collect the ballot for passing “Go” – voting neg forces critical reflection.

**Schleiner 19** – Anne-Marie Schleiner, 2019, “The broken toy tactic: Clockwork worlds and activist games,” from “The Playful Citizen Civic Engagement in a Mediatized Culture,” edited by René Glas, Sybille Lammes, Michiel de Lange, Joost Raessens, and Imar de Vries, SJBE

Although my argument in this chapter will be informed by the substantial inroads that Bogost and others have wrought theorizing the dynamic procedural rhetoric of games, what has been somewhat overlooked, even by critics of ‘procedurality’ like Miguel Sicart (2011), is a closer consideration of procedurality itself. In particular, I am interested in the impact of these ‘gamic’ procedures on political or social critique in what are called ‘serious games.’ Serious games is a grab-bag appellation for diverse educational, training, and activist games, which I will for this chapter primarily limit to the analysis of ‘activist simulation games,’ games such as Climate Defense (Auroch Digital 2013) or Sweatshop (Littleloud 2011) with explicit political and/or persuasive ambitions on the part of their concerned citizen makers. A one- or two-person developer is often solely responsible for all aspects of the game-making in these independent small companies, including art direction, design, programming, and playtesting. The maker of an activist simulation game attempts to make use of mimetic algorithms in the game to present a persuasive argument in motion, to launch a social, environmental, or other activist critique, or to open a political question. As more ordinary citizens come of age among the ‘ludoliterate’ versed in the language and genres of gameplay, relatively easy to produce casual games are becoming an attractive vehicle for political action (Raessens 2010). Still, we are only beginning to forge an understanding of how such games both serve and fail as activist tools, as tactics, among others, available to the concerned citizen. Therefore, my definition in this chapter of an ‘activist simulation game’ is both: a. motivated by an activist or political intent on the part of the game-maker, and b. attempts to harness simulation and procedurality in the game to carry the maker’s political critique or message to the playing public.3 A definition relying partially on the game-maker’s intention does encounter inherent contradictions, as when, for example, games not explicitly intended to be politically persuasive, such as entertaining war games, can easily be read as propaganda. But the desire on the part of the game-maker to use a game as a form of political argumentation with a broader public, both when it succeeds and fails as it is countermanded by aspects of the game, is a primary tension that I will explore in this chapter. Referring to this difficulty in designing serious games Mary Flanagan writes: “These play spaces must retain all the elements that make a game enjoyable while effectively communicating their message” (2009, 249). In an activist simulation game, a play move is not only an inconsequential act of fun, but also carries symbolic weight by referencing real issues and world problems, for instance signifying whether a member of a threatened species like the polar bear in Polar Plunder (AIMS Games Center 2013) can find enough food under the ice for her cubs despite Arctic climate change. And yet, in spite of this added worldly weight and consequentiality, it is often difficult to take serious games seriously. Although game-makers set out to shock players with a moving diagram of harmful and tragic operations, players conversely succumb to the enchantment of lively, toy-like, mechanical processes within the miniature, abstracted clockwork game world, no matter how damaging the actual operations in the exterior world, regardless of how many dolphins are killed or how many tracts of rainforest are destroyed. The game asks to be played and mastered, inviting the player to enter into its cause and effect mechanical loops, regardless of the consequences—it is only a game, after all. The ‘toyness’ of the world of the game, the miniature abstraction of the model that announces itself as game, not life, contributes to this nullification of the game’s critical impact, as I will discuss further on. Moreover, I will argue that the operational movements running inside the game induce a complacency akin to what Martin Heidegger referred to as “everyday sight,” a way of “Being-in-the-World” already familiar to us from procedural interactions in the world outside the game (1927, 107). In order to better understand the effect of the procedurality of the game on the player, in this chapter I will draw on what may seem an unlikely and acontemporous source from outside the fields of game studies and computer science, where procedurality itself has often been accepted at face value as a positive rhetorical tool within games.4 In Being and time, his primary work devoted to forwarding a temporal, embodied phenomenological understanding of human existence, Heidegger theorized a common, everyday mode of being (ontology) and a mental framework that he understood as a submersion within the everyday circulations and procedures of the work-a-day, social world (Ibid., 78). This practical view of the workings of the world is what he refers to alternately as “everyday sight” and “circumspection” (2003, 107). A railway line transports workers from the suburbs to the city; the suburban train stops to let a passenger off at an inner-city station guarded by a vigilant conductor who steps back and forth on the station platform. Such an interlocking set of functional workings, which we also see running compellingly in the toy city of Madurodam, is supplementary to Heidegger’s “Dasein in the They,” an immersed everyday orientation within the common world (1927, 167). We seldom question or “disclose” our place or the place of others in such work-a-day utilitarian operations, for to do so continuously would impede our ability to plug into the “equipmental workshops” we use to take care of daily business (Ibid., 105). The dilemma that confronts the activist game-maker is that the very procedural logic of the simulation game that he or she hopes to harness for a provocative critique has a bewitching effect on the player, comparable to Heidegger’s state of fascinated absorption in the practical workings of the world (1927, 107). Examples of equipment in Being and time, of clocks, hammers, planes, and needles, speak of a more rhythmic, mechanical, Industrial Age, but almost a century later, well into the Information Age, much of our world is still composed of functional, instrumental relations, on and off the screen (Ibid., 99). Circuitous operationality has found yet another abode in the weightless, abstract toy workings of computer games. And yet there are exceptions to this rule of the genre, ways for concerned citizens to design games that snap the player out of the hypnotic circle of toy operationality, via what I will refer to as the broken toy tactic. A rupture in the game catapults the player outside the comforting and rewarding operational sphere of the clockwork game world and induces him or her to critical reflection, contestation, or action. While analyzing two popular activist games closely, I will argue that the player’s shift from fascinated immersion in moving game world operations to a disturbed confrontation with a malfunction of play mirrors Heidegger’s anxious illuminations of the operational clockwork loops of the world that might arise when a tool, like his oft invoked hammer, is broken or missing (1927, 102). A break in the smooth functionality of the game discloses its operational logic in greater “totality” (Ibid., 105). For Heidegger, a “clearing” of everyday sight uncovers the disquieting temporality of “the who’s” existence, as well as illuminating his possibilities (Ibid., 167). Yet, in the hands of the concerned citizen game-maker, this unsettling existential pause or stop, this interruption of the game’s workings, is also a moment ripe for critical reflection and evaluation that precedes the formation of a political stance and possible action, the intended transformation of ‘games for change.’Overseers of toy world operations Let’s enter into a closer comparison of toy world operations at work in two widely played pioneering activist simulation games. The player of Uruguayan Gonzalo Frasca’s airstrike simulator game, September 12th (Frasca 2003a) assumes a ‘god’ or ‘bird’s-eye’ position overlooking a Middle Eastern city from above (see Figure 6.1). This is similar to the perspective on Will Wright’s classic SimCity (Maxis 1989) where the player as city planner constructs and manages a city from above. In fact, many simulation games, following the genre template set by SimCity and The Sims (Maxis 2000), position the player as a distant overseer of automated, minutely scaled, toy working worlds. The goal at the outset of September 12th, similar to many commercial war games released after the terrorist attacks in the United States on September 11, 2001, appears to be to eliminate terrorists from the streets of a Middle Eastern city, identifiable by their gray robes and machine guns. But as the game proceeds, the player recognizes that the more frequently he launches missiles on the terrorists in the city, the more neighboring civilians, including women and children, are converted into terrorists. Forging a rational feedback loop between the player’s actions and visible outcomes in the game environment, September 12th simulates an escalating cycle of conflict exasperated by the War on Terror. This interactive, escalation between player and game becomes a dynamic, interactive argument for “violence begets violence.” Thus, the game procedurally makes a case for peace via the interactive simulation of strife between the terrorists and the player—who is cast in the role of an air force striker. But here we may be slightly misled in applying Frasca’s own belief in the rhetorical efficacy of simulation to the analysis of the game (2003b). The cycle of the escalation of violence largely becomes illuminated in a critical light because the game does not work properly as a game—the only way to ‘win’ the game would be to abstain from playing, from interacting with the game! On the flip side of the ‘positive’ simulation of a damaging cycle of the escalation of violence, lies a negative argument for non-intervention, for non-engagement, a ‘no play imperative’ in either war or games. Paradoxically, can the simulation of a harmful process only become visible (disclosed) to the player, and thereby leveraged as critique, if the game is made frustratingly unplayable, in effect rendered a broken toy? Before we continue with this question, let’s take a few moments to consider how procedurality and simulation have been understood in game scholarship thus far. Murray was one of the first to call attention to the procedurality of games and electronic media. According to Murray, [p]rocedural authorship means writing the rules by which the texts appear as well as writing the texts themselves. It means writing the rules for the interactor’s involvement, that is, the conditions under which things will happen in response to the participant’s actions. It means establishing the properties of the objects and potential objects in the virtual world and the formulas for how they will relate to one another. (1997, 152-153) Bogost refers to the rhetorical impact of such gamic procedural mechanisms on the player as ‘procedural rhetoric’: “I suggest the name procedural rhetoric for the practices of using processes persuasively, just as verbal rhetoric is the practice of using oratory persuasively and visual rhetoric is the practice of using images persuasively” (2008, 125). As a rhetorical form, game procedurality appears to be an important new form of communication available in the public political sphere. Similarly emphasizing the communicative power of gamic procedures, according to Frasca, a game designer or ‘Simauthor’ (simulation author) communicates via the rules, logical processes, and algorithms in the game that model the trajectory of outside the game workings and outcomes: Whoever designs a strike simulator that is extremely hard to play is describing his beliefs regarding social mechanics through the game’s rules rather than through events. […] They are not only able to state if social change is possible or not, but they have the chance of expressing how likely they think it may be. (2003b, 228) Activist game-makers such as Frasca therefore believe it is possible to harness the procedures of the game to mimic the probable outcome of a military assault, and to thereby communicate a particular belief about the workings of the world to the player-citizen, a citizen who may have voting rights and live in a nation with influence over the course of the war. Simulation games deliberately encourage the forging of correspondences from inside-the-game actions, procedures running within Johan Huizinga’s “magic circle” of play (1950), to external spheres of action, so as to provoke a confusion that Bogost dubs as ‘simulation fever’: “But for the magic circle to couple with the world, it must not be hermetic; it must have a breach through which the game world and real-world spill over into one another” (2006, 136). Therefore, for the purposes of this discussion, what is important from Huizinga’s much-cited and challenged magic circle is the relation between procedures running inside the game and those outside the game. Worldly goings-on, when transposed via simulation to the game sphere or magic circle, become magically enchanting because they are miniature toy-like abstractions. My application of the magic circle to contemporary simulation games is not intended to imply that such digital games are magical, sorcerous rituals, as in Daniel Pargman and Peter Jakobsson’s (2008) critique of the contemporary usage of Huizinga’s term. The movement of causal loops within the game exerts the more mundane, everyday magic of the toy miniature, what Chaim Gingold (2003) refers to as a “miniature garden,” a spatially reduced, abstracted world like a Japanese garden, model train set, or a doll house. Over the course of his Master’s thesis, also conducted at Georgia Tech, Gingold expands on the term he encountered in an interview with Shigero Miyamoto, the influential Japanese game designer of Nintendo computer games. Gingold writes: [A] garden has an inner life of its own; it is a world in flux which grows and changes. A garden’s internal behaviors, and how we understand those rules, help us to wrap our heads and hands around the garden. […] Gardens, like games, are compact, self-sustained worlds we can immerse ourselves in. (2003, 7) The reduction in scale and in complexity in a Japanese garden, the scaling down from forest to tree, from lake to pond, serve in a game as a cognitive aid for the player’s apprehension of the systematic clockwork world, a miniature sphere of operations. The simulation game’s ‘procedural argument’ intentionally blurs the line between the miniature game world and the outside world, but there are important differences between the operations running on either side of this fence or ludic border. Although all games have dynamic, timebased procedures, not all of these play moves make much sense outside the game—in other words, to state the rather obvious, not all games are simulation games. For example, when a player makes a move in checkers, this does not correlate to a specific action undertaken in the world outside the game. In this way, the falling, colorful squares of Tetris (Pajitnov 1984) are just that, falling colorful squares. These primarily signify play moves. In such abstract games, actions procedurally advance the game forward toward a goal (or multiple goals) triggering wins and losses. By contrast, in the simulation game, actions and processes have a double signification as both gamic procedures and as metaphoric actions. And yet this added layer of metaphoric significance does not mean that the player will reflect critically on the simulated operation in activist games, as will become apparent in the following example. By way of comparison to September 12th, let’s now consider another widely played, free for download, activist simulation game that affords the player an overview of a miniature toy world. Similar to September 12th, Paulo Pedercini’s farcical McDonald’s Video Game (Molleindustria 2006), simulates a harmful operation, in this case, an environmentally destructive fast food corporate industry. McDonald’s Video Game is structured as a managerial simulation game, and although designed and programmed entirely by Pedercini, the prolific creator behind Molleindustria, the game implements a slick graphical user interface button panel (see Figure 6.2) reminiscent of commercially produced The Sims. The McDonald’s Video Game player alternates between managing four distinct production cycles: a. overseeing farm production; b. administering a cattle feedlot; c. managing a chain of hamburger-grill workers; and d. negotiating policies and marketing campaigns in ‘corporate headquarters.’ The challenge of the game is to effectively multitask, manage, and maintain the production routines in all four areas without letting one slip. As the player’s skill improves, outcomes of actions in one sphere of operations have ramifications elsewhere in the game. For instance, if not enough cattle are raised, negative consequences arise further up the supply chain, ultimately effecting the McDonald’s corporation bottom-line. Although McDonald’s Video Game periodically discloses snippets of textual information about fast food industry practices, it is this simulation of lively processes that imparts a convincing overview of interlocking cycles of fast food bio-production, from deforestation to raising enough cattle for meat to fastfood public relations campaigns. Despite recurrent dips into bankruptcy, McDonald’s Video Game operates so well as managerial training software with the management of a miniature, toy-like, cheerful cow and hamburger world that the ironic subtext of this being an unethical business practice is often missed by players. For instance, when my game design students in Singapore played McDonald’s Video Game, they seemed largely unconcerned about the detrimental side effects of this type of production on workers, animals, consumers, or the environment. They were willing to undertake whatever was necessary to keep the game system alive and the McDonald’s corporation above the bottom line, even adding diseased cows to the food chain. The enchanting ordinariness of toy world equipment Unlike the vehicles circulating in the toy model city of Madurodam, games like September 12th and McDonald’s Video Game require interaction from the player via buttons or a graphical user interface (GUI), conventionally organized into an instrumental dashboard at the edge of the screen. September 12th presents the player with a weapon for targeting and shooting the terrorists; McDonald’s Video Game offers the player a colorful toy-like button interface of slaughterhouse machinery to first convert the livestock into hamburgers, and then a different range of equipment for converting hamburgers into dollars. This observation on the equipment of the game interface may seem obvious, but it is this very ordinariness in game interaction that poses another challenge to critical and activist game design because ‘equipmental’ interactions with game procedures contribute to the player’s ‘everyday sight.’ In a chapter of Being and time entitled ‘The worldhood of the world,’ Heidegger describes the equipment required for his everyday operational view of ‘Being-in-the-World’: “In our dealings we come across equipment for writing, sewing, working, transportation, measurement. […] A totality of equipment is constituted by various ways of the ‘in-order-to,’ such as serviceability, conduciveness, usability, manipulability” (1927, 97). When observable in the clockwork toy world, these equipmental operations impart everyday common sense. Referring to the simulation of a natural cycle in a clock, Heidegger writes: “In a clock, account is taken of some definite constellation in the world system” (2003, 72), and further on he writes: “When we make use of the clock-equipment, which is proximally and inconspicuously ready-to-hand, the environing Nature is ready-to-hand along with it” (Ibid., 101). In other words, those earthly relations that are simulated or incorporated in the equipment, such as the movement of the sun from day to night being replicated in the clock, are easily ‘discovered’ and naturalized in the ‘clock-equipment’. Equipment, or the “ready-to-hand” is easy to see, contrasting to Heidegger’s “presence-at-hand,” the term he uses to refer to the sounds and colors of perceived but not yet differentiated “reality,” such as a rumble of noise that upon reaching the ear does not quite resolve into the screech of a passing motorbike (1927, 228). Unlike the confusion that an intrusion of “presence-at-hand” reality might occasion, the equipmental operations of the ready-to-hand world are easily apprehended, made sense of, or ‘discovered.’ The equipment’s functionality seems obvious, running smoothly in plain sight, in the common-sense realm of ‘the They.’ Naturally, the player would want to use the available buttons to operate the farm machinery and produce hamburgers. Thus, simulation games simulate alleged processes from outside the game sphere in plain view, invoking the everyday perspective of how things work, the operations of fast food production, or of an efficient airstrike. If we apply an extended Heideggerian interpretation, ‘equipment’ refers not only to interface buttons, but also to the larger operations (in his terms ‘workshops’) that these buttons trigger or manipulate. For instance, September 12th presents the player with a weapon for targeting and shooting the terrorists; while McDonald’s Video Game offers the player a colorful toy-like button-interface of slaughterhouse machinery to turn livestock into hamburgers, and then a different range of equipment for turning hamburgers into dollars. Although ready-to-hand equipment is easily discoverable, it is also hidden, in another sense. The familiarity of everyday sight or circumspection, conceals “the totality” of a clockwork operation, the in-order-to relations that it is connected to, including objects and persons at a distance (Heidegger 1927, 105). Immersion in the clockwork world’s operations is a state of “concernful” absorption that is to a certain extent blind and alienated, not only to its own existence, but to the larger repercussions of the operation (Ibid., 101). The game’s movement compels the player to accept its operations as ordinary, as unquestionable cycles of everyday life, unfolding within plain view or, to be more precise, in relation to simulation genre games, within the elevated plain view of the great overseer of the toy world operations. The challenge that then confronts the concerned citizen game-maker is that no matter what these simulated operations are, as they run with the evocative mimicry within miniature toy worlds, they acquire everyday currency and uncritical acceptance among players via the motion of their interlocking, toy-like workings. Player vs. game But do the toy world’s procedures really subsume the player to such an extent? Is the operational functionality of the game truly so bewitching? Furthermore, an allegation could be made that Bogost’s rhetorical transmission of procedural game logic from the sender (the game-maker or ‘Simauthor’) to receiver (the player) is limited by a communications model of sending and receiving. The player in this analysis, even while interacting with the game, becomes a passive recipient of rhetoric in motion. In a similar vein, Sicart critiques the limited role that players are afforded in designer-weighted, instrumental ‘proceduralist’ game studies, writing that players “are important, but only as activators of the process that sets the meanings contained in the game in motion” (2011). Are game designers, then, the only ones afforded the role of agents of engaged ludic citizenship? In support of player agency, Frasca proposes that players, not only game designers, potentially impact the ultimate rhetorical “outcome” of a game by channeling the course of play into directions unimagined by the game-maker (2003b, 228). Frasca calls upon Brazilian theater director Augusto Boal’s “Theater of the Oppressed” as a model for how a game can depart from Aristotlean narrative closure. Frasca writes “one of [Boal’s] most popular techniques, re-enacts the same play several times by allowing different audience members to get into the stage and take the protagonist’s role,” resulting in unforeseen outcomes (Ibid.). For instance, such player-directed outcomes are evident in the spectacular demise of artificial game life, of entire families and their pets, in a dark genre of the Sims known as ‘Disaster Sims.’ The player’s influence on the game’s rhetorical outcome in such cases amounts to a breaking of the original game designer’s ‘script’ to breed a suburban American family. With these morbid, broken games, often ending in fire, we return via a different path, following the player’s initiative rather than the game-maker’s, to derailed and broken game equipment. On the other hand, when the toy is not broken, when the system is running without interruption, as when the player engages with the productive fast food mechanizations of McDonald’s Video Game, the player remains blind to its workings even as she plugs into its persuasive everyday perspective. Losing track of time, the player immerses herself in a sequence of game challenges that, if designed well, alternates rewards (points, bonuses, and additional tools) with escalating peaks of difficulty, oscillating within what psychologist Mihaly Csikszentmihalyi refers to as a pleasurable “flow state” between challenge and skill (1990, 74). Thus, the player’s fascinated state of absorption during gameplay suggests a loss of agency to the game’s mechanics, except for when the player willfully alters the course of the game’s ‘oppressive script’. Similarly, again from the realm of phenomenological philosophy, Heidegger’s student Hans-Georg Gadamer makes the inverse proposal that the game plays the player rather than the player the game (1975). Gadamer conducted an inquiry into aesthetics and art that brought him to the phenomenology of play. Gadamer’s player gives up his will to the game while performing the reflexive moves demanded by a game: “The structure of play absorbs the player into itself, and thus frees him from the burden of taking the initiative, which constitutes the actual strain of existence” (1975, 105). The player merges with the game, entering into an ongoing interactive, reflexive feedback loop: “What happens to us in the experience of art, Gadamer suggests, is very much like what happens to us in play: we lose ourselves” (Weinsheimer 1985, 102). Unless the player is forced to reflect upon correspondences reaching beyond the game, the player’s critical and reflective capacity, political or otherwise, is easily bewitched amid the movement of game actions. Reacting with neither doubt, nor, on the contrary, belief, the player flows with the game’s operational allegations about how the world works. Only when the model is broken or interrupted by a renegade player, such as the maker of a Disaster Sim, or a game cheater or breaker, or through some form of sabotage installed by the game-maker, does the toy world’s algorithms and workings become visible. Frasca’s September 12th catapults the player outside the cozy assumptions of the clockwork game world and the comfortable correlations between rewarding player proficiency with toy weapons and ‘how things work.’ The brokenness of September 12th manifests in that playing well delivers loss, subverting the expectation of the player to master a rewarding challenge of eliminating terrorists. In McDonald’s Video Game, on the other hand, the very operationality of the model of fast food production cycles transmitted to the player overcomes the game’s critical impact. Beautiful toys that run too well are always enchanting, no matter how ugly the outcome of their workings. The player is lost in the game. Broken toys and the no play imperative The operational logic of the game takes hold. A player’s action inspires a resulting reaction on the part of the game. The game, in turn, compels the player to further reflexive play moves and if the game is designed well, the player loses herself, losing even a sense of the passage of hours and days, within the game, absorbed into the game’s workings, immersed in a feedback loop, Gadamer’s aesthetic union of player and game. The player performs a role among other processes running within the clockwork world through interaction with the game machine and the management of its simulated processes. Like the imprint of a popular tune that demands to be liked through its repeated exposure to the ears, players unreflectively absorb the logic of military operations, internalize the production cycle of hamburgers, and flow with the hum of tractors. How satisfying when at least the toy world is operating as it should. In the rational, operational spheres of games, as in the instrumental spheres of life, one’s everyday perspective turns away from suffering and the consequences of damaging human operations. Most feel powerless to disengage from, halt, or redirect harmful goings-on that are naturalized. Players flee their own mortality to the artificial circulations of ageless clockwork, toy worlds. In this sense, Madurodam’s endless ship and train circulations are a soothing and forgetful memorial to the untimely demise of young George Maduro. A tactical recipe for the activist simulation game consists then of two steps, f irst a positive, then a negative; f irst to constructively program a simulation of a harmful operation from the world into the game, followed up by either a game-maker, or player instigated interruption, or sabotage that breaks the spell of the game’s movement and procedurality, thereby illuminating its operationality in a critical light. Absorption in the everyday world of ‘equipmental’ dealings and transactions are broken at this rift of ‘in-order-to’ relations among entities, things, and persons. Induced to a discomforting re-evaluation and analysis of the games’ operational logic, the player performs a critical diagnosis of the wrongness or rightness of the broken play equipment. After being subjected to the broken toy tactic, a worldly operation’s common sense, the everyday claim on existence comes into dispute, becoming a matter of critical concern for the citizen-player. What is paradoxical with the broken toy tactic is that the game and activist critique remain in the last instance incompatible—only by interrupting or ejecting the player from the game, the no play imperative, is a critique illuminated and a political questioning made possible. Moreover, the intended effect of such games is not just a break in the game, but also the possibility of putting a stop to the destructive worldly procedure that is being simulated. The no play imperative extends beyond the game to the refusal to be a ‘player’ in the harmful processes of the world, a refusal to play at war, a refusal to play at the exploitation of the environment in the production and consumption of fast food. Thus, the most earnest mixture of politics and games seems to be delivered in games that do not believe in playing per se, but in the impossibility of separating the world and game, of separating procedurality in one realm or the other on either side of the ludic border. The activist game attempts to catapult the player from absorption in the clockwork toy world, to a realm of politics that he or she is otherwise quite busy avoiding.

#### Scenario analysis forces idealized versions of the subject which excludes disability – that’s a voter for ableism.

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Internalized oppression is not the cause of our mistreatment; it is the result of our mistreatment. It would not exist without the real external oppression that forms the social climate in which we exist. Once oppression has been internalized, little force is needed to keep us submissive. We harbour inside ourselves the pain and the memories, the fears and the confusions, the negative self-images and the low expectations, turning them into weapons with which to re-injure ourselves, every day of our lives. (Mason, as cited Marks, 1999, p.25). Internalised ableism means that to assimilate into the norm the referentially disabled individual is required to embrace, indeed to assume an ‘identity’ other than one’s own – and this subject is repeatedly reminded by epistemological formations and individuals with hegemonic subjectifications of their provisional and (real) identity. I am not implying that subjects have a true or real essence. Indeed the subjects' formation is in a constant state of fluidity, multiplicity and (re)formation. However, disabled people often feel compelled to fabricate ‘who’ they are – to adopt postures and comportments that are additional to self. The formation of internalised ableism cannot be simply deduced by assessing the responses of individuals to Althusser’s famous interpolative hailing “Hey you, there” (Althusser & Balibar, 1979). Whilst a subject may respond to “Hey you there, crip!” – it is naïve to assume that an affirmative response to this hailing repressively inaugurates negative disabled subjectification. In fact the adoption of more positive or oppositional ontologies of disability by the subject in question may be unexpectedly enabling. As Susan Park (2000: 91) argues “what is at stake here is not so much the accuracy behind the hailing privilege, but the power of the hailing itself to instantly determine (or elide) that thing it is naming”. Nonetheless, censure and the cancellation of the legitimacy of oppositional subjectivities remains common place as Cherney reminds us with respect to Deaf culture: “If abnormal [sic] bodies must be fixed to fit within dominant cultural views of appropriateness then the Deaf celebration of their differences must be read as an illegitimate model of advocacy”. (Cherney, 1999, p. 33). Foucault’s (1976; 1980) theorisation of power as productive may provide some offerings from which to build a conversation about internalised ableism. I am not so much interested in the ‘external’ effects of that power, but for the moment wish to concentrate on what Judith Butler aptly refers to as the ‘psychic life’ of power. She describes this dimension: … an account of subjection, it seems, must be traced in the turns of psychic life. More specifically, it must be traced in the peculiar turning of a subject against itself that takes place in acts of self-reproach, conscience, and melancholia that work in tandem with processes of social regulation (Butler, 1997b, p.19). In other words, the processes of subject formation cannot be separated from the subject him/herself who is brought into being though those very subjectifying processes. The consequences of taking into oneself negative subjectivities not only regulate and continually form identity (the disabled citizen) but can transcend and surpass the strictures of ableist authorizations. Judith Butler describes this process of the “carrying of a mnemic trace”: One need only consider the way in which the history of having been called an injurious name is embodied, how the words enter the limbs, craft the gesture, bend the spine …how these slurs accumulate over time, dissimulating their history, taking on the semblance of the natural, configuring and restricting the doxa that counts as “reality”. (Butler, 1997b, p. 159) The work of Williams and Williams-Morris (2000) links racism experienced by African Americans to the effects of hurtful words and negative cultural symbols on mental health, especially when marginalized groups embrace negative societal beliefs about themselves. They cite an international study by Fischer et al (1996) which inter alia links poor academic performance with poor social status. Although using different disciplinary language Wolfensberger (1972) in his seven core themes of SRV, identified role circularity as a significant obstacle to be overcome by disabled people wanting socially valued roles. Philosopher Linda Purdy contends it is important to resist conflating disability with the disabled person. She writes My disability is not me, no matter how much it may affect my choices. With this point firmly in mind, it should be possible mentally to separate my existences from the existence of my disability. (Purdy, 1996, p. 68). The problem with Purdy’s conclusion is that it is psychically untenable, not only because it is posited around a type of Cartesian dualism that simply separates being-ness from embodiment, but also because this kind of reasoning disregards the dynamics of subjectivity formation to which Butler (1997a; 1997b) has referred. Whilst the ‘outputs’ of subjectivity are variable the experience of impairment within an ableist context can and does effect formation of self – in other words ‘disability is me’, but that ‘me’ does not need to be enfleshed with negative ontologies of subjectivity. Purdy’s bodily detachment appears locked into a loop that is filled with internalised ableism, a state with negative views of impairment, from which the only escape is disembodiment; the penalty of denial is a flight from her body. This finds agreement in the reasoning of Jean Baudrillard (1983) who posits that it is the simulation, the appearance (representation) that matters. The subject simulates what it is to be ‘disabled’ and by inference ‘abled’ and whilst morphing ableist imperatives, in effect performs a new hyper reality of be-ing disabled. By unwittingly performing ableism disabled people become complicit in their own demise – reinforcing impairment as an outlaw ontology.

## Case

### Advantage

#### Extinction is good---suffering outweighs the benefits of human existence

Joshua Rothman 17 {Joshua Rothman, the ideas editor of the New Yorker citing David Benatar, Associate Professor of Philosophy at University of Cape Town and author of Better To Never Have Been. 11-27-2017. “The Case for Not Being Born.” https://www.newyorker.com/culture/persons-of-interest/the-case-for-not-being-born}//JM

People, in short, say that life is good. Benatar believes that they are mistaken. “The quality of human life is, contrary to what many people think, actually quite appalling,” he writes, in “The Human Predicament.” He provides an escalating list of woes, designed to prove that even the lives of happy people are worse than they think. We’re almost always hungry or thirsty, he writes; when we’re not, we must go to the bathroom. We often experience “thermal discomfort”—we are too hot or too cold—or are tired and unable to nap. We suffer from itches, allergies, and colds, menstrual pains or hot flashes. Life is a procession of “frustrations and irritations”—waiting in traffic, standing in line, filling out forms. Forced to work, we often find our jobs exhausting; even “those who enjoy their work may have professional aspirations that remain unfulfilled.” Many lonely people remain single, while those who marry fight and divorce. “People want to be, look, and feel younger, and yet they age relentlessly”:

They have high hopes for their children and these are often thwarted when, for example, the children prove to be a disappointment in some way or other. When those close to us suffer, we suffer at the sight of it. When they die, we are bereft.

The knee-jerk response to observations like these is, “If life is so bad, why don’t you just kill yourself?” Benatar devotes a forty-three-page chapter to proving that death only exacerbates our problems. “Life is bad, but so is death,” he concludes. “Of course, life is not bad in every way. Neither is death bad in every way. However, both life and death are, in crucial respects, awful. Together, they constitute an existential vise—the wretched grip that enforces our predicament.” It’s better, he argues, not to enter into the predicament in the first place. People sometimes ask themselves whether life is worth living. Benatar thinks that it’s better to ask sub-questions: Is life worth continuing? (Yes, because death is bad.) Is life worth starting? (No.)

Benatar is far from the only anti-natalist. Books such as Sarah Perry’s “Every Cradle Is a Grave” and Thomas Ligotti’s “The Conspiracy Against the Human Race” have also found audiences. There are many “misanthropic anti-natalists”: the Voluntary Human Extinction Movement, for example, has thousands of members who believe that, for environmental reasons, human beings should cease to exist. For misanthropic anti-natalists, the problem isn’t life—it’s us. Benatar, by contrast, is a “compassionate anti-natalist.” His thinking parallels that of the philosopher Thomas Metzinger, who studies consciousness and artificial intelligence; Metzinger espouses digital anti-natalism, arguing that it would be wrong to create artificially conscious computer programs because doing so would increase the amount of suffering in the world. The same argument could apply to human beings.

Like a boxer who has practiced his counters, Benatar has anticipated a range of objections. Many people suggest that the best experiences in life—love, beauty, discovery, and so on—make up for the bad ones. To this, Benatar replies that pain is worse than pleasure is good. Pain lasts longer: “There’s such a thing as chronic pain, but there’s no such thing as chronic pleasure,” he said. It’s also more powerful: would you trade five minutes of the worst pain imaginable for five minutes of the greatest pleasure? Moreover, there’s an abstract sense in which missing out on good experiences isn’t as bad as having bad ones. “For an existing person, the presence of bad things is bad and the presence of good things is good,” Benatar explained. “But compare that with a scenario in which that person never existed—then, the absence of the bad would be good, but the absence of the good wouldn’t be bad, because there’d be nobody to be deprived of those good things.” This asymmetry “completely stacks the deck against existence,” he continued, because it suggests that “all the unpleasantness and all the misery and all the suffering could be over, without any real cost.”

Some people argue that talk of pain and pleasure misses the point: even if life isn’t good, it’s meaningful. Benatar replies that, in fact, human life is cosmically meaningless: we exist in an indifferent universe, perhaps even a “multiverse,” and are subject to blind and purposeless natural forces. In the absence of cosmic meaning, only “terrestrial” meaning remains—and, he writes, there’s “something circular about arguing that the purpose of humanity’s existence is that individual humans should help one another.” Benatar also rejects the argument that struggle and suffering, in themselves, can lend meaning to existence. “I don’t believe that suffering gives meaning,” Benatar said. “I think that people try to find meaning in suffering because the suffering is otherwise so gratuitous and unbearable.” It’s true, he said, that “Nelson Mandela generated meaning through the way he responded to suffering—but that’s not to defend the conditions in which he lived.”

#### “Extinction” is a decision rule -- it solves future generations of nonhuman suffering.

Sittler-Adamczewski 16 Thomas M. Sittler-Adamczewski (University of Oxford). “Consistent Vegetarianism and the Suffering of Wild Animals.” Journal of Practical Ethics. OXFORD UEHIRO PRIZE IN PRACTICAL ETHICS 2015-16. December 2016. JDN. http://www.jpe.ox.ac.uk/papers/consistent-vegetarianism-and-the-suffering-of-wild-animals/

Ethical consequentialist vegetarians believe that farmed animals have lives that are worse than non-existence. In this paper, I sketch out an argument that wild animals have worse lives than farmed animals, and that consistent vegetarians should therefore reduce the number of wild animals as a top priority. I consider objections to the argument, and discuss which courses of action are open to those who accept the argument. Many consequentialists are vegetarian because they care about the harm done to farmed animals. Some consequentialists may be vegetarian because of environmental concerns, and others for non-consequentialist reasons, but these are not my main focus here. More precisely then, ethical consequentialist vegetarians believe that farmed animals have lives so bad they are not worth living, so that it is better for them not to come into existence. Vegetarians reduce the demand for meat, so that farmers will breed fewer animals, preventing the existence of additional animals. If ethical consequentialist vegetarians1 believed that animals have lives that are unpleasant but still better than non-existence, they would focus on reducing harm to these animals without reducing their numbers, for instance by supporting humane slaughter or buying meat from free-range cows. I will argue that if vegetarians were to apply this principle consistently, the suffering of wild animals would dominate their concerns, and would plausibly lead them to support reducing the number of wild animals, for instance through habitat destruction or sterilisation. SUFFERING IN NATURE, AND ITS IMPLICATIONS If animals like free-range cows have lives that are not worth living, almost all wild animals could plausibly be thought to also have lives that are worse than non-existence. Nature is often romanticised as a well-balanced idyll, so this may seem counter-intuitive. But extreme forms of suffering like starvation, dehydration, or being eaten alive by a predator are much more common in wild animals than farm animals. Crocodiles and hyenas disembowel their prey before killing them (Tomasik 2009). In birds, diseases like avian salmonellosis produce excruciating symptoms in the final days of life, such as depression, shivering, loss of appetite, and just before death, blindness, incoordination, staggering, tremor and convulsions (Michigan Department of Natural Resources). While a farmed animal like a free-range cow has to endure some confinement and a premature and potentially painful death (stunning sometimes fails), a wild animal may suffer comparable experiences, such as surviving a cold winter or having to fear predators, while additionally undergoing the aforementioned extreme suffering (Tomasik 2013). Wild animals do experience significant pleasure, for instance when they eat, play, have sex, or engage in other normal physical activity. One reason to suspect that on average this pleasure is outweighed by suffering is that most species use the reproductive strategy of r-selection, which means that the overwhelming majority of their offspring starve or are eaten shortly after birth and only very few reach reproductive age (Horta 2010; Ng 1995). For instance, ‘in her lifetime a lioness might have 20 cubs; a pigeon, 150 chicks; a mouse, 1000 kits’ (Hapgood 1979), the vast majority of which will die before they could have had many pleasurable experiences. Overall, it seems plausible that wild animals have worse lives than, say, free-range cows. If vegetarians think it’s better for the latter not to exist, they must believe the same thing about wild animals. A second important empirical fact is that wild animals far outnumber farmed animals. Using figures from the FAO, Tomasik estimates that the global livestock population is 24 billion (including 17 billion chicken) (Tomasik 2014). I restrict my count of wild animals to those at least as complex as chicken or small fish, which vegetarians clearly believe do have moral weight. Using studies of animal density in different biomes, Tomasik estimates conservatively that there are at least [60 Billion] 6\*10^10 land birds, [600 Billion] 10^11 land mammals, and [60 trillion] 10^13 fish. Animals in each of these categories alone are several times more numerous than livestock. If wild animals’ well-being is indeed below the threshold for a life worth living, and the above numbers are remotely correct, the scale of wild animal suffering is vast. As Richard Dawkins writes, ‘During the minute it takes me to compose this sentence, thousands of animals are being eaten alive; others are running for their lives, whimpering with fear; others are being slowly devoured from within by rasping parasites; thousands of all kinds are dying of starvation, thirst and disease.’ (Dawkins 1996) If they accept the premises so far, consistent vegetarians should focus on preventing the existence of as many wild animals as possible, since even a small reduction in the global number of wild animals would outweigh the impact of ending all livestock production. For example, they could reduce animal populations by sterilising them, or by destroying highly dense animal habitats such as rainforests. It may even be the case that vegetarians should react to this argument by eating more meat, since feeding livestock requires more surface area for agriculture, and fields contain far fewer wild animals per square kilometre than other biomes such as forests (Matheny and Chan 2005, 585). Of course, to the extent that it is more difficult to reduce wild animal populations than farm animal populations, vegetarians should focus more resources on the latter. But it seems implausible that it would be over a hundred times more difficult to achieve the same proportional reduction, which is what would be needed to reverse my conclusion that wild animal suffering dominates. There could be some simple ways, for instance, for vegetarians to reduce habitat sizes: supporting the construction of large parking lots, or donating to a pro-deforestation lobby. In the final paragraph, I touch upon the issue of how most effectively to reduce wild animal suffering.

#### Non-human suffering is the largest impact -- in quantity and severity – r-selection guarantees it

Moen 16 Ole Martin Moen (University of Oslo, Centre for the Study of Mind in Nature). “The ethics of wild animal suffering.” Etikk i praksis. Nord J Appl Ethics (2016), 91–104. JDN. <http://www.olemartinmoen.com/wp-content/uploads/TheEthicsofWildAnimalSuffering.pdf>

If you have an open wound, a fractured bone, or terminal cancer, you suffer. But how do wounds, bone fractures, and cancers feel for animals such as sparrows, rabbits, and bears? Theoretically, it is possible that it does not feel like anything at all, because animals might not be conscious. Perhaps animals are just complicated machines, more like clocks and cars than like humans. Though it is difficult to establish conclusively that animals really are conscious, however, it is also increasingly difficult to see why rejecting consciousness in animals is any more reasonable than rejecting consciousness in other human beings. Although solipsism at the species level might make sense within religious contexts where humans are taken to have originated separately from all other animals, it coheres well with neither neuroscience nor evolution. Comparing ourselves to sparrows, rabbits, and bears, we may observe that we have the same kind of neurons, the same main brain parts, and the same pain pathways (C and A delta fibers) that they have. Sparrows, rabbits, and bears, moreover, react to noxious stimuli the same way we do, and they stop doing so when anesthetized (see Griffin & Speck 2004; Dawkins 2015). Since we and other animals are genetically, neurologically, and functionally very close, we would need weighty evidence to conclude that, despite these similarities, humans work in fundamentally different ways from other animals: humans consciously, animals non-consciously.1 Increased understanding of animal consciousness helped spur the animal ethics movement. Keeping animals in small cages, castrating them without anesthetics, and branding them with glowing irons—practices that, if performed on humans, would land the perpetrator in prison for decades—are common farming practices around the world. Millions of farm animals live and die under such conditions. Opposing human disregard for animal welfare, Peter Singer (1990) famously argues that just as we have gradually expanded our circle of moral concern to encompass ethnic groups other than our own, and finally humanity as a whole, we should further expand it to include other sentient species. According to Singer, it is suffering as such that is bad, and it is bad whoever experiences it. Though the animal ethics movement is commendable, its circle of moral concern has hitherto expanded almost exclusively to captive animals. With very few exceptions—most notably, David Pearce and Jeff McMahan, whom I shall discuss in detail below—animal ethicists have failed to adequately take into account the suffering of animals living in the wild. Wild animals, however, vastly outnumber captive animals, and arguably, billions of wild animals live lives that are even more painful and distressing than those of their captive counterparts. Though it might well be difficult to alleviate suffering in the wild, and comparatively easier to alleviate suffering caused by humans, disregarding wild animal suffering from the outset involves a form of anthropocentrism that, sadly, enjoys wide acceptance even among those who purport to oppose the doctrine. We might dub this the second anthropocentrism. While traditional anthropocentrics are concerned only with human suffering, anthropocentrics of the second kind are concerned only with human-caused suffering. I will suggest, however, that if we take suffering as such to be bad (roughly along the lines that Singer does), it is unclear why the species membership of those who cause the suffering is morally relevant while the species membership of those who suffer is not. My aim in this paper is not to sway those who are indifferent to animal welfare. Rather, my aim is to make those who are concerned with animal welfare more concerned with the welfare of wild animals. Moreover, I shall exclusively discuss welfarist concerns, so if there are other grounds to care for animals, they lie beyond the scope of this paper. My discussion is limited to mammals and birds, the reason for which is that these are the animals whose ability to suffer is least disputed. If fish, amphibians, reptiles, and/or invertebrates can also suffer, my conclusion is amplified. The empirical side Let me start by defending three empirical claims: (1) that there are vastly more wild than captive animals; (2) that wild animals have the same capacity to suffer as captive animals; and (3) that many, perhaps most, wild animals suffer at least as much as their captive counterparts. These are all empirical claims that say nothing about the value significance of wild animal suffering. As such, we should accept or reject these claims irrespective of our ethical views. How many captive animals are there? According to the Food and Agriculture Organization of the United Nations (2014), the total number of livestock in the world is—at any given time—roughly 25 billion, the majority of which are chicken, followed by ducks, cattle, and sheep. Although this figure leaves out pets and laboratory animals, let us take for granted, for the sake of convenience, that the number of livestock is roughly representative of the number of captive animals. How many wild animals are there? According to Brian Tomasik’s (2014a) estimations, which are generated from research data on the typical prevalence of various animals in various environments coupled with data on the global prevalence of these environments, there are—at any given time—between 60 and 200 billion birds and between 100 and 1,000 billion mammals. If we assume the middle estimate for both birds and mammals, there are, at any given time, 700 billion wild birds and wild mammals combined. This is roughly 25 times the number of birds and mammals in captivity. (If we were to include in our estimates fish, amphibians, reptiles, and invertebrates, which are rare in human captivity but very prevalent in the wild, we would end up with thousands of times more wild than captive animals.) A further empirical premise is that wild animals have the same ability to suffer as captive animals. By this I simply mean that if you tear the skin of both a wild and a captive animal, there is no compelling reason to believe that this would hurt more for the captive animal than for the wild animal. In fact, if we were to conclude that there is a difference between the two, we should probably conclude that while captive animals are more docile (due to drugs and lack of stimulation), wild animals remain sharp and focused. Let us assume, however, that the ability to suffer is the same, or roughly the same, in captive and wild animals. How much do wild animals actually suffer? Very likely, some wild animals suffer very little. Some live long and peaceful lives, have few natural enemies, and have ample supplies of food. When they die, moreover, many animals die quick and painless deaths. The fact that some lives in the wild are pleasant, however, does not contradict the fact for billions of wild animals, life is filled with suffering. One prominent source of suffering is predation. Every day, millions of animals are eaten alive, and though some of them are killed quickly, larger animals will often stay alive for minutes or hours before they die of blood loss, suffocation, drowning, or internal bleeding from poisoning (Tomasik 2014b). While some become paralyzed, and are likely to feel nothing, others feel excruciating pain. Predation is a very visible cause of suffering. In response to this, Tyler Cowen (2003) and Jeff McMahan (2010) have argued that if we can easily prevent a predator attack, we have at least a pro tanto moral reason to do so. In their view, the way predators kill their prey is often so gruesome that if a human were to treat animals similarly, we would have strong reasons to intervene – and for the animal that is eaten alive, the species membership of the attacking predator is likely to matter very little. Though this is an important observation, I think Cowen and McMahan fail to appreciate that suffering caused by predation is likely to account for only a small fraction of the total suffering in nature. Though death from predation might be the most violent and visible cause of suffering, deaths from disease and parasites tend to be more drawn out in time. The same is true of deaths from droughts, floods, and freezing. Life in the wild is also a constant quest for nutrition; at any given time, thousands of animals are in the process of starving to death. Though there is no agent responsible for this suffering, and though it might be hard for us to detect it, the suffering is nonetheless real and prevalent. When a parent animal starves or freezes to death, gets eaten, or dies from disease, its young offspring will often face an equally painful death. This borders on an important point, namely that most suffering in nature is likely to be endured by very young individuals. The reason is not primarily that many parent animals die (although that is also the case), but that most wild animals give birth to many more offspring than are likely to reach adulthood. While humans normally give birth to just one child per year, and provide extensive care to each child (this is called the Kselection strategy), many animals follow a different reproductive strategy: they give birth to dozens or hundreds of offspring every year, and care very little for each individual (the r-selection strategy). These strategies both work to spread the parents’ genes in the population, but the r-selection strategy—which is most common in smaller animals—leads to enormous amounts of suffering because of the very large number of young individuals that are left to starve to death or get eaten, either by their stronger siblings or by other predators (for an elaboration, see Horta 2010). If the average female in a given animal population gives birth to 50 offspring every year—and the population size remains stable year after year—then the majority of individuals in that population will be individuals dying before reaching adulthood. If we grant that animals become conscious shortly after birth, as we assume to be the case with humans, their deaths will often involve pain, and since their lives are very short, they will have very few good things in life to weigh up for all that is bad. For these reasons, Richard Dawkins is almost certainly correct when he writes: The total amount of suffering per year in the natural world is beyond all decent contemplation. During the minute that it takes me to compose this sentence, thousands of animals are being eaten alive, others are running for their lives, whimpering with fear, others are being slowly devoured from within by rasping parasites, thousands of all kinds are dying of starvation, thirst and disease (Dawkins 1995: 131-32). Wild animal suffering is mostly invisible to us. Humans never see the vast majority of wild animals, and those that are seen by us are predominantly healthy and moving. We do not see the young individuals starving to death or the adult individuals being devoured by parasites, and we must keep in mind that even if we saw them, their suffering would often not be apparent to us. While we have evolved to pick up pain cues from other human beings, we are much worse at picking up pain cues from non-human animals, especially those that are genetically remote from us. Moreover, many animals hide signs of weakness and disease to avoid attracting predators (including humans) looking for easy prey. When Thomas Hobbes wrote that life, in the state of nature, is “solitary, poor, nasty, brutish, and short,” he meant human life (Hobbes 1651/1996: XIII.9). It seems, however, that the description is also fitting for the lives of many non-human animals. Because of the brutality of wildlife, one could even make the provocative case that a typical life in the wild is even more painful and distressing than a typical life in human captivity. Although factory farming is often grotesque, animals in captivity are seldom killed in ways that draw out their deaths over several minutes or hours; they are not exposed to predators until they are slaughtered; they typically have access to sufficient amounts of food and water; and the temperature tends to be comfortable. Concerning larger animals, such as cattle, individuals with serious Moen, O.M. Etikk i praksis. Nord J Appl Ethics (2016), 91–104 95 diseases will often be euthanized. For this reason, it is not clear that the average life in the wild is filled with any less suffering than the average life in captivity. However, even if wild animals do, on average, suffer less than captive animals, the sheer number of wild animals is still so overwhelming that the majority of suffering on Earth almost certainly takes place among animals living in wild nature.

#### Species-neutral valuations are the most ethical -- prioritizing humans is arbitrary, clearly self-interested, and the same logic as racism and sexism.

Harris 99 – Dr. John Harris, Ph.D., Sir David Alliance Professor of Bioethics and Research Director at the Centre for Social Ethics and Policy and Director of the Institute of Medicine Law and Bioethics at the University of Manchester, “The Concept of the Person and the Value of Life”, Kennedy Institute of Ethics Journal, Volume 9, Number 4, December, Project Muse

Some people have attempted to overcome, or rather side-step, this problem by simply stipulating that it is human beings that matter (see Warnock 1983). Although this move certainly avoids the problem, it does so at some cost. It is difficult to imagine how one would defend a moral theory that was founded on the stipulation of an arbitrary (and totally unjustified) preference for one kind of creature over another, particularly when this preference is asserted by self-interested individuals on behalf of their own kind. We are all too familiar with the sordid and disreputable history of similar claims in which the moral priority and superiority of "our own kind" has been asserted on behalf of Greeks at the expense of barbarians, whites over blacks, Nazis over Jews, and men over women. Simply stipulating arbitrarily the superiority of our own kind, whether defined by species membership, race, gender, nationality, religion, or any other nonmoral characteristic is, and has always been, disreputable. Membership of a natural kind, or of an ethnic, religious or other grouping, is not of itself a moral property. Potentiality The problem is to distinguish in some morally significant respect, human embryos from the embryos and indeed the adult members of any other species. Species membership is not enough because human embryos seem not to differ, except in species membership and in one other feature that I will discuss in a moment, from the embryos and indeed adult members of other species. Unlike adult members of many other species they are not conscious, although they may become so at some stage during their development. The one thing human embryos have that members of other species do not is their potential not simply to be born and to be human, but to become the sort of complex, intelligent, self-conscious, multifaceted creatures typical of the human species. There are, however, two fatal difficulties for the potentiality argument. Two Problems with Potentiality The logical difficulty. The logical difficulty is straightforward but telling. We are asked to accept that human embryos or fetuses are persons, morally important beings whose interests trump those of other sorts of beings, in virtue of their potential to become another sort of being. But it does not follow logically, even if we accept that we are required to treat ‘x’ in certain ways, and even if ‘a’ will inevitably become ‘x,’ that we must treat ‘a’ as if it had become ‘x,’ at a time or at a stage prior to its having become ‘x’. This is a rather cumbersome and inelegant way of making the point that acorns are not oak trees, nor eggs omelettes. Anyone reading this essay shares with its author one very important, inescapable potential. [End Page 297] We are both potentially dead, however, I hope neither of us is required to concede that it is therefore appropriate for anyone to treat us now, as if we already were dead. Further, it should be noted that the reader and I have this potential with far greater certainty than does the human embryo have the potential to become a glorious, sophisticated adult member of the human species. The scope of potential for personhood. The second difficulty with the potentiality argument involves the scope of the potential for personhood. If the human zygote has the potential to become an adult human being and is supposedly morally important in virtue of that potential, then what of the potential to become a zygote? Something has the potential to become a zygote, and whatever has the potential to become the zygote has whatever potential the zygote has. It follows that the unfertilized egg and the sperm, taken together, but as yet un-united, also have the potential to become fully functioning adult humans. It is sometimes objected that the individual sperm that will fertilize the egg is not identifiable in advance of conception. I am not sure why this is an objection, and it is true that in normal reproduction the identity of the sperm that will successfully fertilize the egg is unpredictable. But the identity of the sperm is not necessarily opaque. The technique known as ICSI (Intra Cytoplasmic Sperm Injection) does identify the individual sperm prior to fertilization. In addition, it is theoretically possible to stimulate eggs, including human eggs, to divide and develop without fertilization (parthenogenesis). As yet it has not been possible to continue the development process artificially beyond early stages of embryogenesis, but if it becomes possible then unfertilized eggs themselves, without need of sperm or cloning (see below), also would have the potential of the zygote. Finally, cloning by nuclear transfer, which involves deleting the nucleus of an unfertilized egg, inserting the nucleus taken from any adult cell, and electrically stimulating the resulting newly created egg to develop, can, in theory, produce a new human. This means that any cell from a normal human body has the potential to become a new “twin” of that individual. All that is needed is an appropriate environment and appropriate stimulation. But this of course is true of normal reproduction. The zygote only has the potential to become an adult member of the species if placed in the appropriate environment and treated thereafter in appropriate and complex ways. The techniques of parthenogenesis and cloning by nuclear substitution mean that conception is no longer the necessary precursor of human beings. [End Page 298] Thus if the argument from potential is understood to afford protection and moral status to whatever has the potential to grow into a normal adult human being, then potentially every human cell deserves protection. I shall not be concerned to refute such an ethic here, but will simply note that it is a very exhausting ethic. What is important about potential? The account of potentiality given here and elsewhere has been criticized for its simplicity. John Finnis (1995, p. 50), for example, has argued that: “[a]n organic capacity for developing eye-sight is not ‘the bare fact that something will become’ sighted; it is an existing reality, a thoroughly unitary ensemble of dynamically inter-related primordia of, bases and structures for, development.” He concludes that “there is no sense whatever in which the unfertilized ovum and that sperm constitute one organism, a dynamic unity, identity, whole.” On the other hand, the account of potential I have outlined treats potentiality as a rather more straightforward idea. A has the potential for Z if, when a certain number of things do and do not happen to A (or to A plus N), then A or A plus N will become Z. For even a “unitary ensemble of dynamically inter-related primordia of, bases and structures for development” must have a certain number of things happen to it and a certain number of things that do not happen to it if its potential is to be actualized. If this monstrous beast of Finnis’s is a zygote, it must implant, be nourished, and have a genetic constitution compatible with survival to term and beyond. Why, the list of things that must happen in normal reproduction, should not also include fertilization is unclear to me. Moreover Finnis’s insistence on a “unitary ensemble,” on “one organism,” seems vulnerable to cloning by nuclear substitution. For any of Finnis’s skin cells, if treated appropriately, might be cloned. As Julian Savulescu (1999, p. 91) has recently reminded us, “What happens when a skin cell turns into a totipotent stem cell is that a few of its genetic switches are turned on and others are turned off. To say it doesn’t have the potential to be a human being until its nucleus is placed in the egg cytoplasm is like saying my car does not have the potential to get me from Melbourne to Sydney unless the key is turned in the ignition.” Most importantly, however, Finnis’s objections, and those of a similar kind, miss the main point of the argument from potential. The potentiality of something, or some things, has moral importance on the assumption [End Page 299] that actualizing a particular potential is what matters. We would not worry about what precisely it is that has the potential to be a person, or an adult human being, if persons or adult humans did not matter. We are only interested in the potentiality argument because we are interested in the potential to become a particular, and particularly valuable, sort of thing. If, as I suggested above, the zygote (Finnis’s unitary ensemble) is important because it has the potential for personhood, and that is what makes it a matter of importance to protect and actualize its potential; then whatever has the potential to become a zygote must also be morally significant for the same reason. Those with their “eyes on the prize,” value potentiality for personhood, not because the potential is contained within “one organism,” but because it is the potential to become something the actualisation of which has moral importance. Gradualism Another approach to the question of when human life becomes morally important is the gradualist approach to moral status. It is suggested that since we know that a morally important person will almost certainly, eventually emerge, it is appropriate to accord a gradually increasing moral status to the embryo or fetus. This view is attractive and has about it the classic air of political compromise. However, if we know why, in virtue of what, it is that normal human adults possess personhood, then we will in principle be able to gauge more precisely when these features, whatever they are, might with some plausibility be said to be present in the emerging individual. Furthermore, if, as I suggest later, personhood turns out to be a threshold concept, then proximity to the threshold is unimportant compared with the importance of crossing it, and there is no justification for taking a gradualist approach to personhood or moral status. Brain Birth Finally, Michael Lockwood (1988) has suggested an elegant solution to the problem of when morally important life begins. Noting that “brain death” is an almost universally accepted criterion of death, and hence of the termination of the moral status of the individual, he has proposed that “brain birth” might be a sensible point at which to date the genesis of moral status. The problem is that “brain death,” although almost universally accepted as a criterion of death, seems less acceptable as a criterion of loss of moral status. Discussion of why this is so is postponed, [End Page 300] however, until the consideration of a case of persistent vegetative state in the penultimate section of this paper. The Meaning of Life Let us step aside for a moment from the previous concerns and consider the question “what is the meaning of life?” rather than “what is it that gives moral status or ultimate value to life?” Philosophers, of this century at least, have generally shied away from this sort of question, except, that is, for the distinguished and much underrated Douglas Adams. In his seminal trilogy, “The Hitchhiker’s Guide to the Galaxy,” Adams (1972, Ch. 27) conducted a famous thought experiment. He imagined a race of beings that wished to solve the ultimate question, the question of the meaning of “life, the universe and everything,” and to this end constructed a hyper-intelligent computer to solve the problem. After seven and a half million years, the computer came back with the answer “42.” This answer is illuminating in an interesting way. Clearly it seems unsatisfactory as an answer to the question: “What is the meaning of life, the universe and everything?” However, the problem with criticizing the answer is that we have not the most rudimentary of idea of what a more plausible (less outrageous) answer might look like. We seem to lack a perspective from which to criticize any answer offered. Nonhuman Persons If we turn now from this question of the meaning of life to questions of its value and ultimate status, things are rather different. Here we do seem to have a perspective, not only from which to criticize possible answers to the question, but from which to construct our own answer. Consider the question of whether there are persons on other planets. Although we do not know the answer to this question, we do know what would convince us that we had found an affirmative answer. We have, in the back of our minds at least, an idea of what we are looking for when we look for people, or evidence of people, on other planets. Let us be clear, however, about what we are *not* looking for. First, we are not looking exclusively or primarily, for human beings. We do not expect persons on other planets, if there are any, necessarily to be members of our own species. Second, we are not necessarily even looking for organic life forms, it may be that we will become convinced that self-constructing machines of sufficient intelligence would count as persons. Third, we are not looking for nonpersonal life forms, although we may also find these and be excited if we do. Neither are we looking for the sort of machinery that would not count as a person (perhaps machinery left behind by persons long since deceased). These observations show us that we do not, in fact, regard species membership as hugely significant in trying to understand what a person might be. Nor even do we require that persons be organic life forms. What then are we looking for? What should convince us that we had discovered persons on other planets? Suppose, that instead of us discovering persons on other planets, they discovered us. Demonstrating their vastly superior technology by arriving on Earth having traversed unimaginable interstellar distances, the extraterrestrials are hungry and tired after their long journey. What could we point to about ourselves that ought to convince the extra-terrestrials that they had discovered persons, morally significant beings of special importance, on another planet? What could we say of ourselves that should convince them of the appropriateness of "having us for dinner" in one sense rather than another? What should convince them to treat us as dinner guests rather than the dinner itself? What makes for a moral distinction between ourselves and, say, lettuces or turnips? Toward the end of the seventeenth century in his "Essay Concerning Human Understanding" the philosopher John Locke attempted to answer this question in a way that has scarcely been surpassed. He wrote: We must consider what person stands for; which I think is a thinking intelligent being, that has reason and reflection, and can consider itself the same thinking thing, in different times and places; which it does only by that consciousness which is inseparable from thinking and seems to me essential to it; it being impossible for anyone to perceive without perceiving that he does perceive. (Locke 1690, Ch. 27, Book II, p. 188) It seems to me that it is beings possessing these capacities, or something closely akin to them, that we are looking for when we ask the question "Are there persons on other planets?" And we must hope that if it is others of vastly superior technology that are asking the question, that they recognize in us fellow creatures of moral standing, fellow persons. It is a species-neutral description but it identifies those features, the potential for which is so important to the failed potentiality argument and the presence of which in space creatures should surely convince us that we had at last encountered persons elsewhere in the universe.

#### The military is building isomer bombs that destroy the quantum vacuum- even testing destroys it

Bekkum 4 (Gary S., Founder – Spacetime Threat Assessment Report Research, “American Military is Pursuing New Types of Exotic Weapons”, Pravda, 8-30, <http://www.starstreamresearch.com/dark_matters.htm>) recut Valiaveedu

Recently the British science news journal "New Scientist" revealed that the American military is pursuing new types of exotic bombs - including a new class of isomeric gamma ray weapons. Unlike conventional atomic and hydrogen bombs, the new weapons would trigger the release of energy by absorbing radiation, and respond by re-emitting a far more powerful radiation. In this new category of gamma-ray weapons, a nuclear isomer absorbs x-rays and re-emits higher frequency gamma rays. The emitted gamma radiation has been reported to release 60 times the energy of the x-rays that trigger the effect. The discovery of this isomer triggering is fairly recent, and was first reported in a 1999 paper by an international group of scientists. Although this controversial development has remained fairly obscure, it has not been hidden from the public. Beyond the visible part of defense research is an immense underground of secret projects considered so sensitive that their very existence is denied. These so-called "black budget programs" are deliberately kept from the public eye and from most political leaders. CNN recently reported that in the United States the black budget projects for 2004 are being funded at a level of more than 20 billion dollars per year. In the summer of 2000 I contacted Nick Cook, the former aviation editor and aerospace consultant to Jane's Defence Weekly, the international military affairs journal. Cook had been investigating black budget super-secret research into exotic physics for advanced propulsion technologies. I had been monitoring electronic discussions between various American and Russian scientists theorizing about rectifying the quantum vacuum for advanced space drive. Several groups of scientists, partitioned into various research organizations, were exploring what NASA calls "Breakthrough Propulsion Physics" - exotic technologies for advanced space travel to traverse the vast distances between stars. Partly inspired by the pulp science fiction stories of their youth, and partly by recent reports of multiple radar tracking tapes of unidentified objects performing impossible maneuvers in the sky, these scientists were on a quest to uncover the most likely new physics for star travel. The NASA program was run by Marc Millis, financed under the Advanced Space Transportation Program Office (ASTP). Joe Firmage, then the 28-year-old Silicon Valley CEO of the three billion dollar Internet firm US Web, began to fund research in parallel with NASA. Firmage hired a NASA Ames nano-technology scientist, Creon Levit, to run the[International Space Sciences Organization](http://www.starstreamresearch.com/isso.htm), a move which apparently alarmed the management at NASA. The San Francisco based Hearst Examiner reported that NASA's Office of Inspector General assigned Special Agent Keith Tate to investigate whether any proprietary NASA technology might have been leaking into the private sector. Cook was intrigued when I pointed out the apparent connections between various private investors, defense contractors, NASA, INSCOM (American military intelligence), and the CIA. While researching exotic propulsion technologies Cook had heard rumors of a new kind of weapon, a "sub-quantum atomic bomb", being whispered about in what he called the "dark halls" of defense research. Sub-quantum physics is a controversial re-interpretation of quantum theory, based on so-called pilot wave theories, where an information field controls quantum particles. The late Professor David Bohm showed that the predictions of ordinary quantum mechanics could be recast into a pilot wave information theory. Recently Anthony Valentini of the Perimeter Institute has suggested that ordinary quantum theory may be a special case of pilot wave theories, leaving open the possibility of new and exotic non-quantum technologies. Some French, Serbian and Ukrainian physicists have been working on new theories of extended electrons and solitons, so perhaps a sub-quantum bomb is not entirely out of the question. Even if the rumors of a sub-quantum bomb are pure fantasy, there is no question that mainstream physicists seriously contemplate a phase transition in the quantum vacuum as a real possibility. The quantum vacuum defies common sense, because empty space in quantum field theory is actually filled with virtual particles. These virtual particles appear and disappear far too quickly to be detected directly, but their existence has been confirmed by experiments that demonstrate their influence on ordinary matter. "Such research should be forbidden!" In the early 1970's Soviet physicists were concerned that the vacuum of our universe was only one possible state of empty space. The fundamental state of empty space is called the "true vacuum". Our universe was thought to reside in a "false vacuum", protected from the true vacuum by "the wall of our world". A change from one vacuum state to another is known as a phase transition. This is analogous to the transition between frozen and liquid water. Lev Okun, a Russian physicist and historian recalls Andrei Sakharov, the father of the Soviet hydrogen bomb, expressing his concern about research into the phase transitions of the vacuum. If the wall between vacuum states was to be breached, calculations showed that an unstoppable expanding bubble would continue to grow until it destroyed our entire universe! Sakharov declared that "Such research should be forbidden!" According to Okun, Sakharov feared that an experiment might accidentally trigger a vacuum phase transition.

#### Quantum vacuum mining destroys the universe- it’s feasible and inevitable

Folger 8 – Tim Folger, Contributing Editor at Discover Magazine, Writer for National Geographic, MA in Journalism from New York University, BA in Physics from UC Santa Cruz, “Nothingness of Space Could Illuminate the Theory of Everything”, Discover Magazine, 7-18, http://discovermagazine.com/2008/aug/18-nothingness-of-space-theory-of-everything

When the next revolution rocks physics, chances are it will be about nothing—the vacuum, that endless infinite void. In a discipline where the stretching of time and the warping of space are routine working assumptions, the vacuum remains a sort of cosmic koan. And as in the rest of physics, its nature has turned out to be mind-bendingly weird: Empty space is not really empty because nothing contains something, seething with energy and particles that flit into and out of existence. Physicists have known that much for decades, ever since the birth of quantum mechanics. But only in the last 10 years has the vacuum taken center stage as a font of confounding mysteries like the nature of dark energy and matter; only recently has the void turned into a tantalizing beacon for cranks. As one blond celebrity heiress and embodiment of emptiness might say, nothing is hot.

To investigate the mysteries of the void, some physicists are using the biggest scientific instrument ever built—the just-completed Large Hadron Collider, a huge particle accelerator straddling the French-Swiss border. Others are designing tabletop experiments to see if they can plumb the vacuum for ways to power strange new nanotech devices. “The vacuum is one of the places where our knowledge fizzles out and we’re left with all sorts of crazy-sounding ideas,” says John Baez, a mathematical physicist at the University of California at Riverside. Whether in the visionary search for the engine of cosmic expansion or the near-fruitless quest for perpetual free energy, the vacuum is where it’s happening. By mining the vacuum’s riches, a true theory of everything may yet emerge.

Empty space wasn’t always so mystifying. Until the 1920s physicists viewed the vacuum much as the rest of us still do: as a featureless nothingness, a true void. That all changed with the birth of quantum mechanics. According to that theory, the space around a particle is filled with countless “virtual” particles rapidly bursting into and out of existence like an invisible fireworks display.

Those virtual quantum particles are more than a theoretical abstraction. Sixty years ago a Dutch physicist named Hendrik Casimir suggested a simple experiment to show that virtual particles can move objects in the real world. What would happen, he asked, to two metal plates placed very close together in a complete vacuum? In the days before quantum mechanics, physicists would have said that the plates would just sit there. But Casimir realized that the net pressure of all the virtual particles—the stuff of empty space—outside the plates should exert a minuscule force, a nudge from nothing that would push the plates together.

Physicists tried for decades to measure the Casimir force with great precision, but it wasn’t until 1997 that technology caught up with theory. In that year, physicist Steve Lamoreaux, now at Yale, managed to detect the feeble Casimir force on two small surfaces separated by a few thousandths of a millimeter. Its strength was about equal to the force that would be exerted against the palm of one’s hand by the weight of a single red blood cell.

At first most physicists regarded the Casimir force as a quantum oddity, something of no practical value. Now that has changed: Forward thinkers see it as an important energizer for the tiniest of machines, devices on the nano scale, and a few labs are working on ways to use the force to defy the conventional limitations of mechanical design. Federico Capasso, a physicist at Harvard, leads a small team that is trying to create a repulsive Casimir force by tinkering with the shapes of plates or with the coatings used to cover them. His entire set of experiments fits on a desktop, and the objects he works with are so small that most of them cannot be seen without a microscope.

“Once you have a repulsive force between two plates, you should be able to eliminate static friction,” Capasso says. That could lead to a host of useful applications, including tiny frictionless bearings or nanogears that spin without touching. “But the experiments are enormously difficult, so I cannot tell you when and how.”

For all its strangeness, the Casimir force may be the one property of empty space that does not baffle today’s physicists. It is garden-variety quantum mechanics, weird but not unexpected. The same can’t be said about dark energy, a truly astonishing discovery made by astronomers a decade ago while observing distant exploding stars. The explosions revealed a universe expanding at an ever-faster rate, a finding at odds with previous expectations that the expansion of the cosmos should be slowing down, braked by the collective gravitational pull of all the matter out there. Some unknown form of energy—physicists call it dark energy simply for lack of a more descriptive term—appears to be built into the very fabric of space, countering the gravitational pull of matter and pushing everything in the universe apart. Some theorists speculate that dark energy might cause a runaway expansion of the universe, resulting in a so-called Big Rip some 50 billion years from now that would tear the cosmos to pieces, shredding even atoms.

The observations have allowed physicists to estimate the quantity of dark energy by deducing the force needed to produce the accelerating effect. The result is a minuscule amount of energy for every cubic meter of vacuum. Since most of the cosmos consists of empty space, though, that little bit adds up, and the total amount of dark energy completely dominates the dynamics of the universe.

With the discovery of dark energy came difficult questions: What is this energy, and where does it come from? Physicists simply do not know. According to quantum mechanics, the energy of empty space comes from the virtual particles that dwell there. But when physicists use the equations of quantum theory to calculate the amount of that virtual energy, they get a ridiculously huge number—about 120 orders of magnitude too large. That much energy would literally blow the universe apart: Objects a few inches from us would be carried away to astronomical distances; the universe would literally double in size every 10-43 second, and it would keep doubling at that rate until all the vacuum energy was gone. This may be the most colossal gap between observation and theory in the history of science. And it means that physicists are missing something fundamental about the way the universe works.

“We’ve made a prediction on the basis of our best theories, and it is wrong, wildly wrong,” says Sean Carroll, a theoretical physicist at the California Institute of Technology. “That means we don’t just tweak a parameter here and there; we really have to think deeply about what our theories are.”

Even if no one knows where the energy of empty space comes from or why it has the value it does, there is now no doubt that it exists. And if there is energy to be had, there is inevitably somebody out there thinking of how to exploit it. The notion of limitless energy from empty space has inspired legions of wannabe physicists who dream of developing the ultimate perpetual-motion device, a machine that would solve the world’s energy problems forever. A quick Internet search for the words free energy and vacuum turns up pages and pages of schemes for tapping the vacuum’s energy. I ask John Baez if such efforts are as hopeless as previous perpetual-motion machines. Are they equally crazy and doomed to failure?

“Perhaps not as doomed as trying to prove the world is flat,” Baez says. “One thing I can say is that I sure hope it doesn’t work, because if you could extract energy from the vacuum, it would mean that the vacuum is not stable. For normal physicists,” he adds with a laugh, “the definition of the vacuum is that it’s the lowest-energy situation possible—it has less energy than anything else.” In short, Baez says, while we may be able to get energy from the vacuum, success “would mean the universe is far more unstable than we ever dreamed.”

The reasoning goes like this: If the vacuum is not at the lowest energy state possible, then at some point in the future, the vacuum could fall to a lower state, pulsing out energy that would threaten the very structure of the cosmos. If some clever engineer were ever to extract energy from the vacuum, it could set off a chain reaction that would spread at the speed of light and destroy the universe. Free energy, yes, but not what the inventors had in mind.

#### Tech advancements make future time travel certain

Elmi 18 – Awes Faghi Elmi, Contributing Writer at n’world Publications, BS in Forensic Science from London South Bank University, Extended Diploma in Physics with Distinction from Leyton Sixth Form College, Futurist, “Technological Progress Might Make Possible Time Travel And Teleportation”, Medium, 8-13, <https://medium.com/nworld-publications/technological-progress-might-make-possible-time-travel-and-teleportation-45176c3c89bc> [typo edited]

Can we travel through time?

This is a question that many people ask their-selves. This question has occurred many times. It is said that time travel is possible and in fact it is. The key things needed to travel through time are speed and kinetic energy. Einstein’s theory also known as the theory of relativity can be used [to] ro understand how to deal with travelling to the future. Einstein showed that travelling forward in time is easy. According to Einstein’ theory of relativity, time passes at different rates for people who are moving relative to one another although the effect only becomes large when you get close to the speed of light. Time travel sometime can cause side effects called paradoxes. These paradoxes can occur especially when going back in time. As if only one thing even the minimum of the details can change something big may happen in the future.

Another scientist who believes that time travel is possible after Einstein is Brian Cox who as Einstein believes that we are only going to be able to travel in the future. This obviously would happen if having a super-fast machine that allows you to go into the future. Cox also agrees on Einstein’s theory of relativity which states that to travel forward in time, something needs to reach speeds close to the speed of light. As it approaches these speeds, time slows down but only for that specific object. They both think as said, that time travel to the future is possible however travelling back in time is impossible, as something must be really as fast as the speed of light. This however for some scientists can be wrong. They state that with the technology that we have now it could be possible to build some sort of machine who will actually be able to travel in both future and past.

A wormhole as shown in the image is a theoretical passage through space-time that could create shortcuts for long journeys across the universe. Wormholes are predicted by the theory of general relativity. However, wormholes bring with them the dangers of sudden collapse, high radiation and dangerous contact with exotic matter. The public knows that time travel is possible but humans at the moment are not able to. However other sources except theories of the past are currently trying to develop a way of time travel. The audience actually cannot wait that this will happen as many media state, such as BBC. Many TV programmes talk about both time travel and teleportation.

Teleportation

Quantum teleportation is a process by which quantum information (e.g. the exact state of an atom or photon) can be transmitted (exactly, in principle) from one location to another, with the help of classical communication and previously shared quantum entanglement between the sending and receiving location.

Albert Einstein, one of the best intelligent minds in the world, believed that teleportation using quantum mechanics was and will be impossible. This however had a breakthrough few scientists in Delft University were finally able to learn how to use the quantum mechanics to teleport. In fact they can make travel through space quantum data concerning the spin state of an electron to another electron few 10 feet away. Thanks to this some public would believe that teleportation is actually real and that this will one day be able to work even on humans.

Between time travel and teleportation, teleportation things are different. Many believe that teleportation is actually impossible as it is needs that a solid material breaks the law of space and time. A solid material must disappear to then reappear in another place. This however is actually possible and in fact some scientists finally were able to teleport a solid material, which disappeared and appeared 10 feet away from the lab. The public did not believe in this but newspapers and website articles talk about it confusing the public, I personally would not believe this as it actually is impossible for something to disappear and reappear 10 feet away from you. However it can still happen if improving the machine one day this might be able to teleport people.

Time travel

Science have proven that one day in the future, it will be able to travel through time. Physicists state that time travel is possible. This however is something that humans cannot achieve easily. Few are the things necessary to travel in time, speed and kinetic energy. Some physicists believe that by using enough speed this last will be able to break through the kinetic energy created from the speed and finally enter in the universe of the time and space continuum. Once you are in this place you can travel through different eras. This however is what many physicists believe using speed. Time travel is discussed a lot in this period and many believe that this one day will happen. Time travel is actually possible and this is said from one of the best minds of the world which was Albert Einstein. Einstein believes as many other physicists that time travel is possible thanks to the theory of relativity. For Einstein the speed needed to time travel must be very close to the speed of light, which is currently impossible, something must be fast near this speed, 299 792 458 m / s Since this was said to the public, this last right now believe that it will be impossible unless ta machine fast enough is built.

The pace with which technology has been progressing in the last couple of years would make it undoubtable to see teleportation and time travel as the next big things. Today’s world is mainly focusing on digital transformation with topics covering cloud computing, blockchain and most importantly artificial intelligence. Time will reveal what’s next on the technology roadmap.

#### That collapses the Universe

Bowers 16 – Steve Bowers, Control Officer in the United Kingdom, Executive Editor and Moderator of the Orion’s Arm Universe Project, Contributing Author for the Orion’s Arm Novella Collection, “WHY NO TIME TRAVEL IN OA”, 1-1, https://orionsarm.com/page/77

Time travel into the future is not only possible but commonplace in the OA Universe (relativistic travel, nanostasis, etc.). Unfortunately, this is a one-way journey. Here is one answer why we don't have time travel into the past in the OA universe. Why Time Travel Would Destroy the Universe Time travel is very dangerous and uncomfortable to contemplate, and even if possible, will no doubt never be useful. It is possible to imagine ways breaking the chain of causality using wormholes as currently described in OA. The wormhole mouths can be displaced in time as well as in space; if one wormhole mouth is carried off on a relativistic spacecraft then brought back, it becomes displaced in time by time dilation. In effect it is the equivalent of the younger twin in the famous Twin Paradox; but it is possible to travel through the mouth of the hole to connect the younger mouth with the older mouth and vice versa. This would allow a traveller to step back into the past. Time Travel: the Options 1. The Boring Physics conjecture - all kinds of time travel are impossible, and wormhole travel of any kind is also impossible in every case. This may the case in the real universe, but in the Orion's Arm universe the existence of traversable wormholes is a basic precept, so that hypothesis cannot apply within the context of OA. 2. The Chronological Protection conjecture — wormholes are possible, but some sort of physical mechanism or set of mechanisms prevents them from becoming time machines. Matt Visser described one such mechanism whereby a flux of virtual particles would be generated every time a time machine created a time loop, known as a Closed Timelike Curve (CTC). A related possibility is the existence or formation of an event horizon between areas of space where time travel is possible (certain wormholes) and areas where it is not possible (the rest of the universe). This is the situation that exists in the Orion's Arm scenario; it may, or may not be the situation in the real world too. 3. The Self-Consistency principle - in this scenario you can go back in time, but you can't change history. This principle was developed by Igor Novikov in the 1980's (Old Earth calendar). If there is only one timeline in the universe, then going back in time forces you to act only in ways that are consistent with the known history of events; that means you cannot kill your grandfather before your father is conceived, no matter how hard you try. This limitation of action might lead to absurd developments; if it is possible to send tourists back in time to watch historical events, they might become so numerous that they make up the majority of people present at such events. Dealey Plaza might be full of time tourists in November 1963 but they cannot act to prevent the assassination of Kennedy, or act in any way inconsistent with the known historical evidence. However if there is more than one timeline in the universe, as described in the Many Worlds Hypothesis, then time travel can be consistent — going back in time simply creates a new, consistent timeline, one of countless others created by quantum events. These timelines are each self-consistent, but as every act of time-travel changes the timeline and creates a new history, it is effectively impossible to travel to one's own past; only to the past of a different timeline, created by your own presence and potentially very different to the one you started in. 4. The Radical Rewrite conjecture - in this scenario you can change your own history, which means the whole of time is mutable and can be shaped to one's own whim. If there is only one universe, history becomes fluid. You might go back and change history, then another time traveller will change it again almost immediately, and the present will be an ever-changing kaleidoscope, with a different President or Prime Minister every day; you will go to sleep in a mansion, and wake up in a mobile home; your car will change from a Buick to a Volksvagen while you are driving it. What is worse, you will not be aware of such changes happening — you will suddenly have a whole new past and a new set of memories created by a meddling time traveller long ago. In some versions of this scenario, each time traveller which goes back in time effectively destroys his or her own future existence, and becomes orphaned in time. Such a lack of continuity will invoke the Chronological Protection Conjecture: the universe will morph and mutate until it reaches a history in which time travel has never been invented, ever, at any time in the past or future. This is the only stable state for the universe, the one we are in now. The CPC has been proposed by many people, including Hawking, Asimov and Larry Niven. Chronological Collapse If the universe does allow reverse time travel, usable by sentient/sophont entities, it won't stop at one or two little historical research trips . . . If there is no effective chronological protection mechanism, the universe of today will be overrun with travellers from the future. Even if there is no 'Big Rip' where the Universe tears itself apart through accelerating expansion, hundreds of trillions of years from now the cosmos will be a slowly dying place. Even red dwarf stars will eventually burn out, leaving the inhabitants of the far future only their dying embers to gather energy from, although the creation and merger of black holes could perhaps keep civilisation going for an (admittedly very long) while. Eventually the entities of the far future will be limited to reversible computation to save energy. This means confining themselves to a very limited set of mental processes. This prospect would surely not appeal to the heirs of once-mighty advanced civilisations. If time travel were possible then refugees from the far future would flood back, sometimes in multiple instances. The future sophonts would come back in an exponentiating wave to constantly change the present and the past, and whole galaxies of material particles will begin to exist in space time reference that did not have them before - some? many? most? matter and events may turn out to be acausal, going round and round in closed timelike loops and increasing the total mass of the universe, which may begin to collapse in the distant future, sending chronistic refugees in massive tardises back to our time thus accelerating the collapse; increasing the mass of the present day universe until it collapses. The collapse will get closer to the present day, until it eventually happened yesterday and we will cease to exist . . . believe me, you don't want to go there.

#### An avalanche of dark energy and matter research is coming quickly

Bertone 18 – Dr. Gianfranco Bertone, Professor in the GRAPPA Institute & Institute of Physics at the University of Amsterdam, PhD in Astrophysics from the University of Oxford, and Dr. Tim M.P. Tait, Professor in the Department of Physics and Astronomy at the University of California, Irvine, PhD in Physics from Michigan State University, BSc in Physics from UC San Diego, Former Research Associate at the Fermi National Accelerator Laboratory and Argonne National Laboratory, “A New Era in the Quest for Dark Matter”, Nature, 10-4, https://arxiv.org/pdf/1810.01668.pdf

The Future In the quest for dark matter, naturalness has been the guiding principle since the dark matter problem was established in the early 1980s. Although the absence of evidence for new physics at the LHC does not rule out completely natural theories, we have argued that a new era in the search for dark matter has begun, the new guiding principle being “no stone left unturned”: from fuzzy dark matter (10−22 eV) to primordial black holes (10 M ), we should look for dark matter wherever we can. It is important to exploit to their fullest extent existing experimental facilities, most notably the LHC, whose data might still contain some surprises. And it is important to complete the search for WIMPs with direct detection experiments, until their sensitivity reaches the so-called neutrino floor94 . At the same time we believe it is essential to diversify the experimental effort, and to test the properties of dark matter with gravitational waves interferometers and upcoming astronomical surveys, as they can provide complementary information about the nature of dark matter. New opportunities in extracting such information from data arise from the booming field of machine learning, which is currently transforming many aspects of science and society. Machine learning methods have been already applied to a variety of dark matter-related problems, ranging from the identification of WIMPs from particle and astroparticle data95, 96 to the detection of gravitational lenses97, and from radiation patterns inside jets of quarks and gluons at the LHC98 to real-time gravitational waves detection99. In view of this shift of the field of dark matter searches towards a more data-driven approach, we believe it is urgent to fully embrace, and whenever possible to further develop, big data tools that allow to organize in a coherent and systematic way the avalanche of data that will become available in particle physics and astronomy in the next decade.

#### That triggers quantum effects that violently collapse the vacuum---destroying the Universe

Arkell 14 – Esther Inglis-Arkell, Contributor to the Genetic Literacy Project, Contributing Editor and Senior Reporter at io9, Freelance Writer for Ars Technica, BS in Physics from Dartmouth College, “We Might Be Destroying The Universe Just By Looking At It”, io9 – Gizmodo, 2-3, https://io9.gizmodo.com/we-might-be-destroying-the-universe-just-by-looking-at-1514652112

It's not often that astronomy goes well with the book of Genesis. But this is a theory that evokes the line, "But of the tree of the knowledge, thou shalt not eat of it: for in the day that thou eatest thereof thou shalt surely die." In this theory, knowledge doesn't just kill you — it kills the entire universe. Indeed, one physicist speculates that continuous observation of the universe might put it into a state that will destroy us all. The Curse of the Big Bang Our universe's eventual demise, in this case, springs from the fact that it wasn't properly created. The big question has always been, how does something come from nothing? If, in the beginning, there was nothing but a vacuum, devoid of energy or matter, where did the universe come from? As it turns out, not all vacuums are alike - some of them are what's called "false vacuums." They are "bubbles" of space that look like vacuums, but aren't actually at their bottom energy state. They can collapse at nearly any time, and go into their ground energy state. The collapse of such a false vacuum releases energy. At first, many physicists thought this is how our universe began. A false vacuum collapsed down to a true one, and the matter and energy of our universe was the result of its collapse. It's also possible that the collapsing false vacuum didn't create a true vacuum. It simply created, along with all that matter and energy, another false vacuum. The universe we live in now might simply be a long-lived bubble of false vacuum that's not really at its lowest energy state. If you have trouble believing that the vacuum of space that astronomers observe isn't at its lowest energy state - ask yourself what dark energy is if not a higher-than-expected energy state for the universe. We might be in a fragile, and unstable, bubble of universe that could collapse at any time. But There's Hope! (Unless We Screw It Up) It's unpleasant to think the universe might collapse out of existence at any moment. Especially since, as the collapse won't exceed the speed of light, we'll probably see it coming for us, knowing we're unable to escape it. Fortunately, we have (theoretical) options. Dark energy drives the expansion of the universe. Although bubbles decay, they decay along different lines according to the energy state they're in when they start collapsing. If they're in a high energy state, the rate of decay is also high. If they're in a low energy state, the rate of decay is slow. Put the fast rate of decay in a race against the expansion of the universe, and we are all winked out of existence. Put the slow rate of decay in that same race, and we all have the chance to live productive lives. The problem is, when we observe a system, we can keep it in a certain state. Studies have shown that repeatedly observing the state of an atom set to decay can keep that atom in its higher-energy state. When we observe the universe, especially the "dark" side of the universe, we might be keeping it in its higher-energy state. If the process of collapse happens when it is in that state, the universe will cease to exist. If we stop looking, and the universe quietly shifts to a state at which its decay is slower, then we're all saved. The more we look at the universe, the more likely it is to end.