### 1NC – T – USFG

#### Topical affirmatives must instrumentally defend n expansion of the scope of the United States core antitrust laws to substantially increase prohibitions on anticompetitive business practices.

#### Resolved means a policy

Louisiana House 5

(<http://house.louisiana.gov/house-glossary.htm>)

Resolution A legislative instrument that generally is used for making declarations, stating policies, and making decisions where some other form is not required. A bill includes the constitutionally required enacting clause; a resolution uses the term "resolved". Not subject to a time limit for introduction nor to governor's veto. ( Const. Art. III, §17(B) and House Rules 8.11 , 13.1 , 6.8 , and 7.4)

#### Federal government is the legislative, executive and judicial

US Legal No Date (United States Federal Government Law and Legal Definition https://definitions.uslegal.com/u/united-states-federal-government/)

The United States Federal Government is established by the US Constitution. The Federal Government shares sovereignty over the United Sates with the individual governments of the States of US. The Federal government has three branches: i) the legislature, which is the US Congress, ii) Executive, comprised of the President and Vice president of the US and iii) Judiciary. The US Constitution prescribes a system of separation of powers and ‘checks and balances’ for the smooth functioning of all the three branches of the Federal Government. The US Constitution limits the powers of the Federal Government to the powers assigned to it; all powers not expressly assigned to the Federal Government are reserved to the States or to the people.

#### Should requires action

AHD 2k

(American Heritage Dictionary 2000 (Dictionary.com))

should. The will to do something or have something take place: I shall go out if I feel like it.

#### ‘Its’ means cooperation must be governmental

US District Court 7 (United States District Court for the District of the Virgin Islands, Division of St. Thomas and St. John, “AGF Marine Aviation & Transp. v. Cassin,” *2007 U.S. Dist. LEXIS 90808*, Lexis)

The Court inadvertently used the word "his" when the Court intended to use the word "its." The possessive pronoun was intended to refer to the party preceding its use--AGF. Indeed, that reference is consistent with the undisputed facts in this case, which indicate that Cassin completed an application for the insurance policy and submitted it to his agent, Theodore Tunick & Company ("Tunick"). Tunick, in turn, submitted the application to AGF's underwriting agent, TL Dallas. (See Pl.'s Mem. of Law in Supp. of Mot. for Summ. J. 5.)

#### The “core” antitrust statutes are the Sherman Act, Clayton Act, and FTC Act

Lisa Kimmel 20, Senior Counsel at Crowell & Moring, LLP in Washington, D.C., twenty years of experience as an antitrust lawyer and holds a Ph.D. in economics from the University of California at Berkeley; and Eric Fanchiang, associate in Crowell & Moring’s Irvine, CA office and a member of the firm’s antitrust and commercial litigation groups, 2020, “Antitrust and Intellectual Property Licensing,” in 2020 Licensing Update, Wolters Kluwer Legal & Regulatory U.S., https://www.crowell.com/files/20200401-Licensing-Update-Chapter-13.pdf

U.S. antitrust law is defined by federal and state statutes, as interpreted by the courts. The core federal statutes are the Sherman Act,1 passed by Congress in 1890, and the Federal Trade Commission2 and Clayton Acts,3 both passed in 1914. The United States Department of Justice (“DOJ”) and the Federal Trade Commission (“FTC” or “Commission”) (together the “agencies”) share enforcement of most areas of federal antitrust law but with some differences in the scope of their authority. The FTC has sole authority to enforce Section 5 of FTC Act, which prohibits (1) unfair methods of competition and (2) unfair or deceptive acts or practices. The FTC almost always pursues claims for anticompetitive conduct as unfair methods of competition and reserves charges of unfair or deceptive acts or practices for consumer protection violations. Though the FTC's authority to challenge unfair methods of competition goes beyond conduct prohibited by the Sherman and Clayton Acts, in practice the FTC brings most unfair methods of competition cases under the same standards that courts apply to Sherman Act claims. The most prominent exception is the invitation to collude offense, which falls outside the scope of the Sherman Act (if the invitation is not accepted, there is no agreement). The FTC challenges invitations to collude as so-called “standalone” violations of Section 5.4 The DOJ has sole authority to pursue criminal violations of the antitrust laws. Most states have their own state antitrust and unfair competition statutes. State law follows federal law to some extent, though as discussed below, may differ from federal law in meaningful ways that vary state to state. State attorneys general and private parties can also typically file suit to enforce both federal and state antitrust law.

#### They violate each of the above words’ requirements of government action

#### 2 impacts

#### 1---iterative education. Debate is unique because of the near-infinite iteration of limited arguments over the course of a season that forces debaters to improve their arguments and consider a “narrow superposition” of approaches to a limited issue. Every debater is here for different reasons, but they trace back to the pedagogical uniqueness of the space. An open topic prevents iteration through shallow debates, unpredictable advocacies, and lack of testing.

#### An imperfect topic is key. Choosing a flawed resolution is good because it ensures that meaningful contestation can happen at all. Reading a topical aff doesn’t tie oneself to the federal government, it is a temporary advocacy for the purpose of refining argumentation and exporting the benefits of debate outside of it.

#### 2---fairness--- non-topical advocacies monopolize argumentative ground and allow the affirmative to unilaterally determine negative positions – it creates a competitive incentive to give the neg the worst ground and the aff the best – this comes before evaluating the substance of the aff because it’s a procedural question

## Case

### 1nc

#### Their rejection of political engagement is not radical but continues the prevailing mode of leftist cynicism that eviscerates our ability to construct alternatives to political domination

Sam Burgum 15, He has a PhD in Sociology from Warwick. He is now a research fellow at the University of Sheffield, *The branding of the left: between spectacle and passivity in an era of cynicism*, Journal for Cultural Research, 19:3, 306-320, DOI: 10.1080/14797585.2015.1021996//KU-MS

I argue that we can see a similar enacting of interpassivity taking place in the positive response to Brand’s radical spectacle, in particular on social media. For example, following the Paxman interview, Twitter was alight with praise and professions of support, whereas on Facebook, “groups” were quickly established entitled “Russell Brand for Prime Minister” and “I Support Russell Brand’s Call for Revolution” (gaining 150,000 members between them overnight). As such, while his appearance seemed to encourage much discussion, what such media actually allowed for is a subjective expression of intent yet an objective passivity. Brand could be said to have relieved the “keyboard warriors” of their authentic passivity and performed the critique on their behalf, paradoxically rendering his extravagant call for revolution a definite way of preventing it. As Jodi Dean writes, interpassivity is a central part of communicative capitalism’s fantasy of participation, where such internet users

“believe they are active, making a difference by clicking on a button, adding their name to a petition or commenting on a blog” but instead “something else, a fetish object, is active in our stead … the frantic activity of the fetish works to prevent actual action”. (2009, p. 31)

In the same way as Wall-e, Brand’s resistance sits comfortably alongside the preexisting materialisation of neoliberal capitalism as a distribution of the sensible, offering interpassive spectacle and allowing feelings of critique without any objective action.

What the concept of interpassivity ultimately suggests is that, in a cynical society, a gap opens up between objective and subjective belief. What the mechanism allows is a subjective distance – yet an objective proximity – to the problem of change: in action, one enacts passivity; yet in voice, one cries for action. In other words, as Fleming and Spicer have put it, “they are subjectively disbelievers, but objectively (in deeds, actions and behaviours) they ardently believe” (2005, p. 182). As such – and against the Situationist duping spectacle – I argue that the interpassive spectacle is a much better model of contemporary ideology where even practices and discourses of resistance enact that which is being resisted. Therefore, Brand’s entertainment value is problematic, not only because it panders to already-held belief structures, but also because of interpassivity which allows radical expression but actually has the effect of preventing change. The political issue is therefore not false consciousness, but the cynicism of the subject.

Branded by cynicism

Rather than the Situationist spectacle, then, I argue that the reason those on the left are rendered post-politically impotent to bring about change is not because we are deceived, but because we enact apathy despite ourselves. In other words, the relationship between the resistive subject and ideology is not one of false consciousness, but one of cynicism: we are not misdirected by shallow spectacles, but instead somehow distracted by our cynical belief that we are being “distracted”. In this section, I begin by outlining the concept of cynicism as it has been theorised by Peter Sloterdijk and Slavoj Žižek. This then leads us to an analysis of the cynical position adopted by Brand’s critics, which I argue actually demonstrates more political problems on the part of the left than those suggested by Brand himself.

For Sloterdijk, cynicism is an attitude that emerges right at the centre of the enlightenment project, where, in contrast to a modernist illumination of truth, “a twilight arises, a deep ambivalence” (1987, p. 22). Rather than the promised heightened consciousness of science that would allow us to see the hidden essential truths behind appearances, the very conception of truth as unconcealedness (aletheia) 3 instead creates a widespread mistrust and suspicion of every appearance. Subsequently, “a new form of realism bursts forth, a form that is driven by the fear of becoming deceived or overpowered … everything that appears to us could be a deceptive manoeuvre of an overpowering evil enemy” (Sloterdijk, 1987, p. 330). The surface becomes suspect and the subject therefore retreats from all appearances: judging them to be spectacles that are seeking to oppress through falsity. The result is cynicism.

Subsequently, this leads Sloterdijk to his well-known paradoxical definition of cynicism as “enlightened false consciousness” which he describes as a “modernized, unhappy consciousness on which enlightenment has laboured both successfully and in vain … it has learned its lessons in enlightenment, but it has not, probably was not able to, put them into practice” (1987, p. 5). In other words, in the search for a higher consciousness behind appearances, the subject is paradoxically “duped” by their very suspicion of being duped. Furthermore, because the subject thinks they “know” that appearances are just a mask, they disbelieve the truth when it does appear. Like the story of the Emperor’s New Clothes, they fancy themselves to know what is right in front of their eyes (that the emperor is nude and vulnerable) yet they choose “not to know” and don’t act upon it (they still act as if the emperor is all-powerful). As such,

cynical reason is no longer naïve, but is a paradox of enlightened false consciousness: one knows the falsehood very well, one is well aware of a particular hidden interest hidden behind the ideological universality, but still one does not renounce it. (Žižek, 1989, p. 23)

The audience to the parade of power can see that the emperor is not divine – just a fragile human body like the rest of us – yet they cynically choose not to know and objectively retain his aura. They congratulate themselves on “knowing” that Brand is a trivial spectacle, yet they choose to remain apathetic towards his calls for action.

As such, the dismissive reaction to Brand reveals a regressive interpassive tendency of the left to subjectively treat ourselves as “enlightened” to authentic politics and yet objectively render ourselves passive. In a kind of defence mechanism, the left believes that it

can avoid becoming the dupe of the latest fashion or advertising trend by treating everything as a matter of fashion and advertising, reassuring ourselves as we flip through television channels or browse through the shopping mall that at least we know what’s really going on. (Stanley, 2007, p. 399)

The critics disbelieve Brand, distrusting his motives and seeing him as inauthentic, yet they continue to “believe” objectively in their own marginalisation. As such, the cynical left believe they are dismissing shallow spectacle in the direction of a stronger authentic radicalism, yet what their “doing believes” is the maintenance of their apathetic position. More precisely, it maintains the attitudes of left melancholy and anti-populism.

The problem of “left melancholy” points towards the forever-delayed search for authenticity on the part of a cynical left that is in mourning. Coined by Walter Benjamin (1998), the concept points towards “the revolutionary who is, finally, attached more to a particular political analysis or ideal – even to the failure of that ideal – than to seizing possibilities for radical change in the present” (Brown, 1999, p. 19). Suffering from a history of defeat and embarrassment, the left persist in a narcissistic identification with failure, fetishising the “good old days” and remaining faithful to lost causes. As Benjamin himself points out, the cynical kernel of this attitude is clear, as “melancholy betrays the world for the sake of knowledge … but in its tenacious selfabsorption it embraces dead objects in its consumption in order to redeem them” (1998, p. 157). In other words, the sentiment is a deliberate self-sabotage that takes place even before politics proper has a chance to begin or “the paradox of an intention to mourn that precedes and anticipates the loss of the object” (Žižek, 2001, p. 146).

This then leads us to the second problem of leftist cynicism: anti-populism. As a result of melancholia, the left has developed the bad habit of prejudging all instances of popular radical expression (such as Brand’s) as necessarily flawed. However, to return to Dean again, she points out that this aversion to being popular and successful is a defining feature of a contemporary left, who prefer to adopt an “authentic” underdog position in advance than take risks towards political power. As she argues, “we” on the left see “ourselves” as “always morally correct but never politically responsible” (Dean, 2009, p. 6) prepositioned as righteous victims and proud political losers from the outset. What this cynicism towards instances of popular radicalism ultimately means, therefore, is that any concern for authenticity is ultimately a regressive one, a defence mechanism for a left that “as long as it sees itself as defeated victims, can refrain from having to admit is short on ideas” (Dean, 2009, p. 5). Such an attitude means never risking potential failure and residing in the safety of marginal righteousness.

It is the contention here, therefore, that both melancholia and anti-populism can be seen in the cynical reaction to Brand’s radicalism. Somewhat ironically, Brand (2013) even recognised these problems himself when he wrote in his New Statesman piece that

the right seeks converts while the left seeks traitors … this moral superiority that is peculiar to the left is a great impediment towards momentum … for an ideology that is defined by inclusiveness, socialism has become in practice quite exclusive.

Automatically, then, the left denounce Brand and self-proclaimed “radical left-wing thinkers and organisers” bitterly complain how he is getting so much attention for the arguments they have been making for years (for example, Park & Nastasia, 2013). The left maintain distance and label Brand trivial, yet such a distance only renders these critiques even more marginal and prevents them from becoming popular, effective or counter-hegemonic.

As Žižek has pointed out, the political issue of cynicism is “not that people ‘do not know what they want’ but rather that cynical resignation prevents them from acting upon it, with the result that a weird gap opens up between what people think and how they act”, adding that “today’s post-political silent majority is not stupid, but it is cynical and resigned” (2011, p. 390). In terms of Brand, this blanket cynical melancholy is typical of the left’s distrust of anything popular, rendering them “like the last men” whose “immediate reaction to idealism is mocking cynicism” (Winlow & Hall, 2012, p. 13). Proponents of a radical alternative immediately adopt caution with the effect of forever delaying change, holding out for that real and authentic (unbranded) struggle and therefore denying it indefinitely.

#### This debate should be a site for deliberation over political strategies---disavowing the formative role of academic debates betrays our responsibility as the visionaries of leftist movements.

Smulewicz-Zucker 15 – Professor of Philosophy @ Baruch College CUNY

(Gregory, “The Treason of Intellectual Radicalism and the Collapse of Leftist Politics,” LOGOS, Winter edition)

These four elements of the new radical intellectuals and the movements they have influenced are in direct contradiction to the rational radicalism that we implicitly espouse here. On our reading, there is not only a theoretical but also a deeply political difference between what these theorists search for and the Enlightenment-inspired radical view of a social order marked by solidarity around common goods, civic virtue oriented toward the defense of the public welfare, well-ordered political institutions with public purpose as their aim, constitutionalism that secures individual as well as economic rights, and the democratization of social and economic life as basic criteria for social justice. The alternative move, marked by identity politics, anti-statism, direct and participatory democracy, and neo-anarchism, has succeeded in fragmenting and marginalizing left movements and politics. Perhaps even worse, these “new movements” lack any real constituency, have scarcely any concrete political demands, and are purposefully self-alienated from the levers of real power and policy.[22] As a result, a real, politically consequential left has withered. The political culture of western democracies are marked more by a general value-consensus around liberal-capitalism than any time since the late 1950s. Movements that once saw the true mechanisms of politics – the need to influence parties, to push for legislative reform, to insist on the expansion of the democratization of economic and political institutions, to forge ideologies that were rooted in national culture – have simply disappeared. Nietzsche’s insistence that aesthetics replace the political has now become manifest in this new radicalism. Now, so-called academic “radicals” can be seen to have betrayed politics: they dismiss the reality of the political process and instead call for an obscure and abstract “resistance.” Perhaps the basic thesis can be laid out that where there is no strong labor movement, there can be no robust left politics, and even less relevant left political theory. But whatever the explanation for the increased irrationalism of current left theory, we believe that these intellectuals should be held accountable for the ideas they promulgate. Staggering is the extent to which these radical mandarins self-confidently strut their stuff, even as political defeats mount for leftist politics with the increasing victory of “right to work” legislation, the dismantling of environmental protections, the increased power of corporate interests, and an expanding wealth and income divide. We take seriously the notion that there is a responsibility for intellectuals to debate and critique ideas that have public consequence; the effect of these thinkers and their ideas on the left we see as a primary concern. As Christopher Lasch once remarked, “Cultural radicalism has become so fashionable, and so pernicious in the support it unwittingly provides for the status quo, that any criticism of contemporary society that hopes to get beneath the surface has to criticize, at the same time, much of what currently goes under the name of radicalism.”[23] With this in mind, reviving the tradition of rational progressive politics can be saved only once these new radicals and their approaches have been interrogated and critiqued. Confronting the fashionable nonsense of the present requires that these their ideas be scrutinized against the more rationalist claims that have given shape to radical and critical thought since the Enlightenment, not to mention the common sense that the thinkers we address have sought to evade. We believe that the success of these thinkers and ideas marks a real and disturbing departure from the more rationalist, more realist understanding of progressive and radical politics that marked the more successful movements of the nineteenth and much of the twentieth century. Indeed, one of the more recent fruits of this new radical theory has been the renewed interest in Marxism by so called “millennial Marxists” and their associated publications, like Jacobin, n+1, and others. They put forth no new body of theoretical arguments but seek a rediscovery of Marxism and class politics. But Even this relatively modest claim to fame cannot be further from the truth. An undeserved self-confidence and moral self-righteousness abound while concrete political analysis vanishes. To be sure, this new trend is scarecely more than a pseudo-radicalism with no real politics in view rendering its pursuits shallow and bereft of critical content. Far from opposing the trends of the culture industry and its very technique of commodifying culture and thought, their efforts are merely its expression. Radicalism now acts as a cultural tag, a new identity, at best a means to vent moral rage without genuine political acuity. In a mesmerizing sleight of hand, these new “radicals” have turned the discourse of Marxism and other figures of a past radicalism that once nourished organic labor and social movements against the realities of exploitation and human debasement into limp caricatures.

#### Intellectual investment---voting aff destroys the radical potential of the alternative by splintering resistance and directing our energy towards the wrong places---creating new spaces for critique without collective movement building makes us feel good but only strengthens neoliberalism.

David Chandler 10, Professor of International Relations, University of Westminster, London, *No Communicating Left*, Published in Radical Philosophy, No.160 (March/April 2010), pp.53-55//KU-MS

Dean pulls few punches in her devastating critique of the American left for its complacency, its limited capacity, and even its lack of awareness of the need to offer a stand of political resistance to power. This is how she concludes her book:

The eight years of the Bush administration were a diversion. Intoxicated with a sense of purpose, we could oppose war, torture, indefinite detention, warrantless wiretapping, a seemingly endless series of real crimes… such opposition keeps us feeling like we matter… We have an ethical sense. But we lack a coherent politics. (p.175)

Dean highlights clearly the disintegration of the collective left and its simulacra in the individuated life-style politics of today’s depoliticized radicalism, where it appears that particular individual demands and identities are to be respected but there is no possibility of universalising them into a collective challenge to the system: no possibility of a left which stands for something beyond itself. She argues that, rather than confront this problem, the left take refuge in the fantasy that technology will overcome their inability to engage and that the circulation of ideas and information on the internet will construct the collectivities and communities of interest, which are lacking in reality. For Dean, this ‘technology fetishism’ marks the left’s failure: its ‘abandonment of workers and the poor; its retreat from the state and repudiation of collective action; and its acceptance of the neoliberal economy as the “only game in town”’ (p.33).

In fact, she uncovers the gaping hole at the heart of the left, highlighting that radicalism appears to be based less on changing the world than on the articulation of an alternative oppositionalist identity: a non-strategic, non-instrumental, articulation of a protest against power. In a nutshell, the left are too busy providing alternative voices, spaces and forums to think about engaging with mass society in an organised, collective, attempt to achieve societal transformation. For Dean, this is fake or hollow political activity, pursued more for its own sake than for future political ends. This is a politics of ethical distancing, of selfflattery and narcissism, which excuses or even celebrates the self-marginalization of the left: as either the result of the overwhelming capacity of neoliberal power to act, to control, and to regulate; or as the result of the apathy, stupidity, or laziness of the masses - or the ‘sheeple’ (p.171) - for their failure to join the radical cause.

Dean suggests that the left needs to rethink its values and approaches and her book is intended to be a wake-up call to abandon narcissistic complacency. In doing this, she highlights a range of problems connected around the thematic of the left’s defence of democracy in an age of communicative capitalism. She argues that the left’s focus on extending or defending democracy by asserting their role in giving voice and creating spaces merely reproduces the domination of communicative capitalism, where there is no shared space of debate and disagreement but the proliferation of mediums and messages without the responsibility to develop and defend positions or to engage and no external measure of accountability. Communicative capitalism is held to thrive on this fragmented, atomizing, and individuated, framework of communication, which gives the impression of a shared discourse, community, or movement but leaves reality just as it is, with neoliberal frameworks of domination, inequality, and destruction continuing unopposed (pp.162-75).

This is not merely a critique of the US left; it is also a powerful deconstruction of its claims for a collective existence. She suggests this most strongly in her chapters on ‘technology fetishism’ and on the ‘9/11 truth’ movement, in which she analyzes how individuals come together not on the basis of a collective political project, challenging power, but on the basis of an invitation for individuals to affirm their alienation from power and to produce, or to ‘find out for themselves’, their own personal ‘truths’. These are not projects to change or to transform the external world but mechanisms whereby individuals can find meaning through their ethical individual actions and beliefs. She powerfully describes how ‘9/11 truth’ movements are about individual affirmation rather than collective engagement. In this they can easily be equated with the mass anti-war demonstrations where individuals marched under the banner of ‘Not in My Name’, seeking personal affirmation in distancing themselves from politics rather than taking responsibility to engage in political struggle by the building of any collective movement (p.47).

### 1nc – Baudrillard

#### The aff is a double turn---positioning the 1AC as a way to undermine meaning or representation is itself an imposition of meaning that reaffirms the system they claim to oppose. They just create a new hierarchy of meaning in which irony, subversion, ambivalence etc are defined in opposition to literalism, truth and reality---the 1AC is no more challenging to the system than the other forms of resistance they reject

Joseph Valente 85, “Review: Hall of Mirrors: Baudrillard on Marx,” Diacritics, Vol. 15, No. 2 (Summer, 1985), pp. 54-65

As intimated however, Baudrillard's revolutionary project has serious structural flaws

as well. His call to deconstruct and transgress the general code is self-evidently quixotic, since by his own testimony the sign-form now fixes the limits of thought. So while decrying "the rationalist political illusions, the dreams of political voluntarism [wrought by] the repression of the symbolic," [MP 108] he offers precious little in their stead. He ultimately envisages a spontaneous, impassioned, almost mystical overthrow of the general code, but his previous delineation of political economy as a master-device of mobilization and co-optation renders this option paltry and improbable. The entanglements of his polemic on this point graphically illustrate the difficulties confronting revolutionary discourse.¶ Like Derrida, Baudrillard asserts that all binary oppositions convey a hidden hierarchy- use-value rebounds to the advantage of exchange-value, concrete labor is the satellite of abstract social labor etc.- which reproduce in miniature the definitive form of political economy. In order to transgress the code, accordingly, these hierarchies cannot simply be reversed, they must be subverted. In theory, symbolic ambivalence designates this subversion and symbolic exchange characterizes the realm of originary transgression. In theoretical practice, however, these terms only appear, and only can appear, in opposition to the logic of equivalence and exchange-value, in what amounts to a new hierarchy. Baudrillard invariably pronounces concrete qualitative use-value, whether of commodities or labor, abstract by comparison to the "richness of symbolic exchange." He thus installs the symbolic as the new, concrete qualitative base, reinscribing the line of division between (simulated) reality and its abstract reduction. As soon as it enters this binary scission, which is to say in its genesis as a concept, the symbolic object or relation is overdetermined as the anti-productive, reduced to the irreducible, reified as that which is in itself non-reifiable, and measured according to the uniform, rational standard of valence. Thus, at a higher level, commanding a greater range and depth of content, Baudrillard's critique mirrors Marx's critique mirroring the logical form of political economy. He is to Marx what he claims Marx is to Feuerbach.¶ A related contradiction appears on the anthropological or subjective side of things. Baudrillard's revolutionary discourse cannot admit to rising from or answering to any fundamental need or moral good, having already branded both idealistic fictions produced by the general code for its preservation and aggrandizement. Further, in holding the code to govern "all production, material or symbolic," Baudrillard's theory, a most rational production to be sure, inferentially defines itself as an expression of the code and an extension of its domain. This coopted status would in turn explain the tendency of his argument to establish, at a second level and against his better judgment, a new binary structure or scission. For whatever Baudrillard openly espouses, it is clear that he takes symbolic ambivalence and exchange as the arche (motive, impetus, matrix) and the telos (point, prescription, purpose) of his theoretical project. But as Derrida effectively demonstrates, the presumption of an end entails the presumption of an essence. Baudrillard restores the "keystone of ideology" as he does "concrete" reality and, in so doing, proves the code doubly inescapable. In explicitly denying human essence, he situates his revolutionary impulse as strictly a code-effect, by implicitly affirming Man's essence, he buttresses the code-form. The problem lies in the polemical gesture itself. Proceeding by and mirroring the logic of opposition, "the critique is perhaps only the subtle long-term expression of the system's expanded reproduction" [MP 50].¶ The specific character of human essence Baudrillard has hit upon deepens the impression that a Derridean double-bind is inherent to his enterprise. In order to make a clean break with the rational finality of the code, Baudrillard is driven to a position unmistakably akin to the noble savage mythos so prevalent during the earliest stages of capitalism. At that time, it served as an essential ideological force in the bourgeois revolution, countervailing the monarch's claim of divine sanction with an appeal to the empirically revealed law of Nature. Now the same mythos represents an ill-defined objective, without known means of attainment or substantive ideological consequences, just the sort of harmless opposition political economy entertains and perhaps even manufactures. Addressing the plight of Marxism in the monopolistic phase, Baudrillard avers that "the system can afford the luxury of contradiction and dialectic through the play of signs. It can indulge itself with all the signs of revolution. Since it produces all the responses, it annihilates the question in the same blow" [MP 126-27]. Symbolic exchange would seem to be just the sort of revolutionary diversion, a diversion for and from the revolutionary impulse, which Baudrillard remarks here. As Marx's privileging of the concrete was to the social abstractions of early capitalism, so Baudrillard's fetishism of the primitive is to the hyper-technical hyper-artificial tenor of today: a countersign and so a systemic simulation.

#### Baudrillard’s critique does not generalize to the thesis that all information-production is pure spectacle

Patrick Wilcken 95 Department of Anthropology, Goldsmiths’ College, University of London “The Intellectuals, the Media and the Gulf War” Critique of Anthropology 1995 15: 37

There are strong links between the theoretical meanderings described above and intellectuals’ response to an event like the Gulf War. The ’no comment’ approach was perhaps the most widespread in keeping with an indifferent critical climate, but for those who put their oar in, agnosticism was the order of the day. Baudrillard, for example, in his infamous article ’The Reality Gulf’ (1991a) written on the eve of hostilities, claimed that the war would not in fact take place. By this he meant that the media had created a ’hyper real scenario’ of fallacious commentary, empty predictions and reports of threats and counterthreats that were staged for the media in the first place. In Baudrillard’s opinion, the only real ’strategic cite is the TV screen from which we are daily bombarded’. There is no other reality; images and their referents are interchangeable. As a result we have on our hands, under the auspices of the UN as an ’extended contraceptive’, a ’Safe War’ (like safe sex) - ’a form of war which means never having to face up to war’ (1991a: 25).

Baudrillard’s piece as a description of the way the media worked during the crisis holds some validity,&dquo; but to go from there and suggest that taking any position on such an event by attempting to demystify the media ’simulacrum’ is simply mistaken - in effect just one more illusory exercise - is absurd to say the least. Baudrillard’s second article published in Liberation (1991b) entitled ’La guerre du Golfe n’a pas eu lieu’ (’The Gulf War Did Not Take Place’) goes even further in this direction. Baudrillard is willing to concede that in the event mass destruction did take place, but he goes on to argue that we must not be deceived into taking a moral stand on such an issue, but must instead engage in a sort of postmodern oneupmanship and reject all evidence so as to be ’more virtual than the events themselves’ (trans. in Norris, 1992: 194).

Baudrillard’s position is perhaps somewhat extreme, but its controversial avant-garde flavour assured it copy space. But similar sentiments dressed up differently begin to look disturbingly representative of the intellectual response in the media when one considers Michael Ignatieff’s article in the Observer (1991). ’The languages of moral concern hardly connect,’ writes Ignatieff. Some people decry the carnage on the road to Basra, others, like Ignatieff himself, support the war on the grounds that sanctions would have failed. But in the final analysis ’neither side has the slightest hope of convincing the other’ . What kind of critical commentary is this? Ignatieff’s relativist stance renders informed debate irrelevant and absolves him from having to defend his pro-war position.

On the other side of the Atlantic, Barbara Ehrenreich (one of Garafola’s new generation public intellectuals) in an article for Time magazine (1990), ’The Warrior Culture’, attributes the eagerness of the US to confront the Iraqis militarily to America’s culture of aggression. She starts off with a sort of Victorian anthropological chamber of horrors: dozens of ’pretechnological peoples’ including the Masai of East Africa and the North American Plains Indians rule that men cannot marry until they have killed in battle; in the Solomon Islands a chief’s status is reckoned by the number of skulls displayed around his door; Aztec kings use human hearts in religious rituals. America possesses just such a ’warrior culture’ with its unquenchable thirst for violence on television, its willingness to go to war on any pretext, and its warrior elite siphoning off nearly a third of the federal budget even in peace time. While left-wingers may blame this war on imperialism, Ehrenreich concludes, and right-wingers ’internationalism’ the real villain is in the culture itself.

Ehrenreich’s well-intentioned piece not only fails to convince ethnographically but, reducing international politics to culture, eliminates the possibility of dissent. Ehrenreich is arguing in effect, that Americans are unable to help themselves: their culture inculcates them with the urge to fight. Historical precedent, economic considerations and global power relations become irrelevant.

These three public intellectuals, highly visible in their respective countries, are unable to assess critically a major political event like the Gulf War. Baudrillard wants to live in ’virtual reality’, Ignatieff concludes that any adjudication is impossible and Ehrenreich reduces the conflict to specious cultural predispositions. Their lack of conviction, though, owes as much to the theoretical climate as to the requirements of the media. Baudrillard’s piece satisfies the market for the bizarre - the intellectual eccentric going over the top; Ignatieff encapsulates the views of the soft liberal readership of the Observer; while Ehrenreich’s article has obvious exotic appeal.

But even outside the requirements of the media, the Gulf War highlighted the general paralysis of the intellectual community worldwide. In the USA, Edward Said argues that intellectuals failed to join the debate because of their lack of ’affiliation with the public sphere’, provinciality and impotence (1991: 15). Even the editorial board of Dissent was divided over the issue, producing a wide spectrum of opinion. Todd Gitlin described the war as a ’catastrophe’ which was ’avoidable’, the late Irving Howe felt compelled to take a pro-war position but felt that the stance was ’uncomfortable’ for the Left, while Dennis Wrong concluded that because of the UN’s role this was a ’legal and just war’ (Morton et al., 1991:153-60). In France ex-radical ’soixante huitard’ Alaine Touraine gave the war his unequivocal support, while Pierre Bourdieu denounced it as ’drunken war-mongering’ (Zamiti, 1992 : 53 ; author’s trans.). In Britain, Christopher Norris comments that few intellectuals were able to resist the ’pressures of ideological recruitment’ (1992: 25) and The Times, in an article written during the conflict, described the ’old constituency of intellectual protest’ as ’in confusion’ (27 January 1991). But perhaps the most striking example of intellectual disarray was in Germany, where the issue of the war was the first event to break up decisively one of the most politically cohesive left-wing groups in Europe. Veterans of 1968 Enzensberger and Brumlik came out in support of the Allies as other intellectuals appeared to flounder in self-contradiction: Jurgen Habermas commented that the war was ’justified’ (as opposed to ’just’); Cohn-Bendit supported the war while at the same time condemned the hypocrisy of the intellectuals for ignoring the suffering of the Iraqi people (Rabinbach, 1991 : 462).

### 1nc – cap good

#### Capitalism is good and sustainable---technological progress has successfully dematerialized economic growth.

McAfee 19, \*Andrew Paul McAfee, a principal research scientist at MIT, is cofounder and codirector of the MIT Initiative on the Digital Economy at the MIT Sloan School of Management; (2019, “More from Less: The Surprising Story of How We Learned to Prosper Using Fewer Resources and What Happens Next”, https://b-ok.cc/book/5327561/8acdbe)

Capitalism and technological progress are the first pair of forces driving dematerialization. This statement will come as a surprise to many, and for good reason. After all, it’s exactly this combination that caused us to massively increase our resource consumption throughout the Industrial Era. As we saw in chapter 3, the ideas of William Jevons and Alfred Marshall point to the distressing conclusion that capitalism and tech progress always lead to more from more: more economic growth, but also more resource consumption.

So what changed? How are capitalism and tech progress now get ting us more from less ? To get answers to these important questions, let’s start by looking at a few recent examples of dematerialization.

Fertile Farms

America has long been an agricultural juggernaut. In 1982, after more than a decade of steady expansion due in part to rising grain prices, total cropland in the country stood at approximately 380 million acres. Over the next ten years, however, almost all of this increase was reversed. So much acreage was abandoned by farmers and given back to nature that cropland in 1992 was almost back to where it had been almost twenty-five years before. This decline had several causes, including falling grain prices, a severe recession, over-indebted farmers, and increased international competition.

A final factor, though, was the ability to get ever-more corn, wheat, soybeans, and other crops from the same acre of land, pound of fertilizer and pesticide, and gallon of water. The material productivity of agriculture in the United States has improved dramatically in recent decades, as we saw in chapter 5. Between 1982 and 2015 over 45 million acres—an amount of cropland equal in size to the state of Washington—was returned to nature. Over the same time potassium, phosphate, and nitrogen (the three main fertilizers) all saw declines in absolute use. Meanwhile, the total tonnage of crops produced in the country increased by more than 35 percent.

As impressive as this is, it’s dwarfed by the productivity improvements of American dairy cows. In 1950 we got 117 billion pounds of milk from 22 million cows. In 2015 we got 209 billion pounds from just 9 million animals. The average milk cow’s productivity thus improved by over 330 percent during that time.

Thin Cans

Tin cans are actually made of steel coated with a thin layer of tin to improve corrosion resistance. They’ve been used since the nineteenth century to store food. Starting in the 1930s, they began also to be used to hold beer and soft drinks.

In 1959 Coors pioneered beer cans made of aluminum, which is much lighter and more corrosion resistant than steel. Royal Crown Cola followed suit for soda five years later. As Vaclav Smil relates, “A decade later steel cans were on the way out, and none of them have been used for beer since 1994 and for soft drinks since 1996.… At 85 g the first aluminum cans were surprisingly heavy; by 1972 the weight of a two-piece can dropped to just below 21 g, by 1988 it was less than 16 g, a decade later it averaged 13.6 g, and by 2011 it was reduced to 12.75 g.”

Manufacturers accomplished these reductions by making aluminum cans’ walls thinner, and by making the sides and bottom from a single sheet of metal so that only one comparatively heavy seam was needed (to join the top to the rest of the can). Smil points out that if all beverage cans used in 2010 weighed what they did in 1980, they would have required an extra 580,000 tons of aluminum. And aluminum cans kept getting lighter. In 2012 Ball packaging introduced into the European market a 330 ml can that held 7.5 percent less than the US standard, yet at 9.5 g weighed 25 percent less.

Gone Gizmos

In 2014 Steve Cichon, a “writer, historian, and retired radio newsman in Buffalo, NY,” paid $3 for a large stack of front sections of the Buffalo News newspaper from the early months of 1991. On the back page of the Saturday, February 16, issue was an ad from the electronics retailer Radio Shack. Cichon noticed something striking about the ad: “There are 15 electronic gimzo type items on this page.… 13 of the 15 you now always have in your pocket.”

The “gizmo type items” that had vanished into the iPhone Cichon kept in his pocket included a calculator, camcorder, clock radio, mobile telephone, and tape recorder. While the ad didn’t include a compass, camera, barometer, altimeter, accelerometer, or GPS device, these, too, have vanished into the iPhone and other smartphones, as have countless atlases and compact discs.

The success of the iPhone was almost totally unanticipated. A November 2007 cover story in Forbes magazine touted that the Finnish mobile phone maker Nokia had over a billion customers around the world and asked, “Can anyone catch the cell phone king?”

Yes. Apple sold more than a billion iPhones within a decade of its June 2007 launch and became the most valuable publicly traded company in history. Nokia, meanwhile, sold its mobile phone business to Microsoft in 2013 for $7.2 billion to get “more combined muscle to truly break through with consumers,” as the Finnish company’s CEO Stephen Elop said at the time of the deal.

It didn’t work. Microsoft sold what remained of Nokia’s mobile phone business and brand to a subsidiary of the Taiwanese electronics manufacturer Foxconn for $350 million in May of 2016. Radio Shack filed for bankruptcy in 2015, and again in 2017.

From Peak Oil to… Peak Oil

In 2007 US coal consumption reached a new high of 1,128 million short tons, over 90 percent of which was burned to generate electricity. Total coal use had increased by more than 35 percent since 1990, and the US Energy Information Administration (the official energy statisticians of the US government) forecast further growth of up to 65 percent by 2030.

Also in 2007 the US Government Accountability Office (GAO), a federal agency known as “the congressional watchdog,” published a report with an admirably explanatory title: “Crude Oil: Uncertainty about Future Oil Supply Makes It Important to Develop a Strategy for Addressing a Peak and Decline in Oil Production.” It took seriously the idea of “peak oil,” a phrase coined in 1956 by M. King Hubbert, a geologist working for Shell Oil. As originally conceived, peak oil referred to the maximum amount of oil that we could annually produce for all of humanity’s needs.

The first oil wells pumped out the crude oil that was closest to the earth’s surface or otherwise easiest to access. As those wells dried up, we had to drill deeper ones, both on land and at sea. As the world’s economies kept growing, so did total demand for oil, which kept getting harder and harder to obtain. Peak oil captured the idea that despite our best efforts and ample incentive, we would come to a time after which we would only be able to extract less and less oil year after year from the earth. Most of the estimates summarized in the GAO report found that peak oil would occur no later than 2040.

The report did not mention fracking, which in retrospect looks like a serious omission. Fracking is short for “hydraulic fracturing” and is a means of obtaining oil and natural gas from rock formations lying deep underground. It uses a high-pressure fluid to cause fractures in the rock, through which oil and gas can flow and be extracted.

The United States and other countries have long been known to have huge reserves of hydrocarbons in deep rock formations, which are often called shales. Companies had been experimenting with fracking to get at them since the middle of the twentieth century, but had made little progress. In 2000 fracking accounted for just 2 percent of US oil production.

That figure began to increase quickly right around the time of the GAO report. Not because of any single breakthrough, but instead because the suite of tools and techniques needed for profitable fracking had all improved enough. A gusher of shale oil and gas ensued.

Thanks to fracking, US crude oil production almost doubled between 2007 and 2017, when it approached the benchmark of 10 million barrels per day. By September of 2018 America had surpassed Saudi Arabia to become the world’s largest producer of oil. American natural gas production, which had been essentially flat since the mid-1970s, jumped by nearly 43 percent between 2007 and 2017.

As a result of the fracking boom the United States has experienced peak coal rather than peak oil. And the peak in coal is not in total annual supply, but instead in demand. Fracking made natural gas cheap enough that it became preferred over coal for much electricity generation. By 2017 total US coal consumption was down 36 percent from its 2007 high point.

The phrase peak oil is still around, but, as is the case with coal, it usually no longer refers to supply. As a 2017 Bloomberg headline put it, “Remember Peak Oil? Demand May Top Out Before Supply Does.” Even though the extra supply from fracking has helped push down oil and gas prices, many observers now believe that energy from other sources—the sun, wind, and the nuclei of uranium atoms—is getting cheaper faster and becoming much more widely available. So much so that, as a 2018 article in Fortune about the future of oil hypothesized, “This wouldn’t be just another oil-price cycle, a familiar roller coaster in which every down is followed by an up. It would be the start of a decades-long decline of the Oil Age itself—an uncharted world in which… oil prices might be ‘lower forever.’ ” Analysts at Shell, the company from which the phrase peak oil originated, now estimate that global peak oil demand might come as soon as 2028.

Taking Stock of Rolling Stock

My friend Bo Cutter started his career in 1968 working for Northwest Industries, a conglomerate that owned the Chicago and North Western Railway. One of his first assignments was to help a team tasked with solving a problem that sounds odd to modern ears: figuring out where CNW’s railcars were.

These cars are massive metal assemblies, each weighing thirty tons or more. In the late 1960s CNW owned thousands of them, representing a huge commitment of both material and money. Across the railroad industry, the rule of thumb then was that about 5 percent of a company’s railcars moved on any given day. This was not because the other 95 percent needed to rest. It was because their owners didn’t know where they were.

CNW owned thousands of miles of track in places as far from Chicago as North Dakota and Wyoming. Its rolling stock (as locomotives and railcars are called) could also travel outside the company’s network on tracks owned by other railroads. So these assets could be almost anywhere in the country.

When the railcars weren’t moving, they sat in freight yards. At the time Cutter started his job, freight yards didn’t keep up-to-date records of the idle rolling stock they contained because, in the days before widespread digital computers, sensors, and networks, there was no way to cost-effectively know or communicate the location of each car. So it was impossible for CNW or any other railroad to systematically track its most important inventory, even though doing so would be hugely beneficial to the company’s bottom line. For example, Cutter’s team knew that if they could increase the percentage of cars moving each day from 5 percent to 10 percent, they would need only half as many of them. Even a single percentage point increase in freight-car use would yield major financial benefits.

When Cutter started his assignment, CNW and all other railroads employed spotters, who visited yards and watched trains pass, then telegraphed their findings to the head office. Other railroads passed on similar information to collect the demurrage charges they were owed for each CNW car on their tracks and in their yards. Cutter’s team improved on these methods by making them more systematic and efficient. They put in place a better baseline audit of where railcars were, employed more spotters, painted CNW cars differently so they were easier to see, and explored how to make more use of a new tool for businesses: the digital computer.

That tool and its kin are now pervasive in the railroad industry. In the early 1990s, for example, companies started putting radio-frequency identification tags on each piece of rolling stock. These tags would be read by trackside sensors, thus automating the work of spotting. At present over 5 million messages about railcar status and location are generated and sent throughout the American railway system every day, and the country’s more than 450 railroads have nearly real-time visibility over all their rolling stock.

The Rare Earth Scare

In September of 2010 the Japanese government took into custody the captain of a Chinese fishing boat that had collided with Japanese patrol vessels near a group of uninhabited islands in the East China Sea claimed by both countries. China responded by imposing an embargo on shipments of rare earth elements (REE) to the Land of the Rising Sun.

Even though Japan relented almost immediately and released the captain, a global panic began. This is because rare earths are “vitamins of chemistry,” as USGS scientist Daniel Cordier puts it. “They help everything perform better, and they have their own unique characteristics, particularly in terms of magnetism, temperature resistance, and resistance to corrosion.”

By 2010 China produced well over 90 percent of the world’s REE. Its actions in the wake of the maritime incident convinced many that it could and would take unilateral action to control the flow of these important materials, and panicked buying soon followed (along with its close cousin rampant speculation). A bundle of REE that would have sold for less than $10,000 in early 2010 soared to more than $42,000 by April of 2011. In September of that year the US House of Representatives held a hearing called “China’s Monopoly on Rare Earths: Implications for US Foreign and Security Policy.”

China didn’t attain its near monopoly because it possessed anything close to 90 percent of global reserves of REE. In fact, rare earths aren’t rare at all (one, cerium, is about as common in the earth’s crust as copper). However, they’re difficult to extract from ore. Obtaining them requires a great deal of acid and generates tons of salt and crushed rock as by-products. Most other countries didn’t want to bear the environmental burden of this heavy processing and so left the market to China.

In the wake of the embargo, this seemed like a bad idea. As Representative Brad Sherman put it during the congressional hearing, “Chinese control over rare earth elements gives them one more argument as to why we should kowtow to China.” But there was never much kowtowing. By the time of the hearing, prices for REE were already in free fall.

Why? What happened to the apparently tight Chinese stranglehold over REE? Several factors caused it to ease, including the availability of other supply sources and incomplete maintenance of the embargo. But as public affairs professor Eugene Gholz noted in a 2014 report on the “crisis,” many users of REE simply innovated their way out of the problem. “Companies such as Hitachi Metals [and its subsidiary in North Carolina] that make rare earth magnets found ways to make equivalent magnets using smaller amounts of rare earths in the alloys.… Meanwhile, some users remembered that they did not need the high performance of specialized rare earth magnets; they were merely using them because, at least until the 2010 episode, they were relatively inexpensive and convenient.”

Overall, the companies using REE found many inexpensive and convenient alternatives. By the end of 2017 the same bundle of rare earths that had been trading above $42,000 in 2011 was available for about $1,000.

What’s Going On?

There is no shortage of examples of dematerialization. I chose the ones in this chapter because they illustrate a set of fundamental principles at the intersection of business, economics, innovation, and our impact on our planet. They are:

We do want more all the time, but not more resources. Alfred Marshall was right, but William Jevons was wrong. Our wants and desires keep growing, evidently without end, and therefore so do our economies. But our use of the earth’s resources does not. We do want more beverage options, but we don’t want to keep using more aluminum in drink cans. We want to communicate and compute and listen to music, but we don’t want an arsenal of gadgets; we’re happy with a single smartphone. As our population increases, we want more food, but we don’t have any desire to consume more fertilizer or use more land for crops.

Jevons was correct at the time he wrote that total British demand for coal was increasing even though steam engines were becoming much more efficient. He was right, in other words, that the price elasticity of demand for coal-supplied power was greater than one in the 1860s. But he was wrong to conclude that this would be permanent. Elasticities of demand can change over time for several reasons, the most fundamental of which is technological change. Coal provides a clear example of this. When fracking made natural gas much cheaper, total demand for coal in the United States went down even though its price decreased.

With the help of innovation and new technologies, economic growth in America and other rich countries—growth in all of the wants and needs that we spend money on—has become decoupled from resource consumption. This is a recent development and a profound one.

Materials cost money that companies locked in competition would rather not spend. The root of Jevons’s mistake is simple and boring: resources cost money. He realized this, of course. What he didn’t sufficiently realize was how strong the incentive is for a company in a contested market to reduce its spending on resources (or anything else) and so eke out a bit more profit. After all, a penny saved is a penny earned.

Monopolists can just pass costs on to their customers, but companies with a lot of competitors can’t. So American farmers who battle with each other (and increasingly with tough rivals in other countries) are eager to cut their spending on land, water, and fertilizer. Beer and soda companies want to minimize their aluminum purchases. Producers of magnets and high-tech gear run away from REE as soon as prices start to spike. In the United States, the 1980 Staggers Act removed government subsidies for freight-hauling railroads, forcing them into competition and cost cutting and making them all the more eager to not have expensive railcars sit idle. Again and again, we see that competition spurs dematerialization.

There are multiple paths to dematerialization. As profit-hungry companies seek to use fewer resources, they can go down four main paths. First, they can simply find ways to use less of a given material. This is what happened as beverage companies and the companies that supply them with cans teamed up to use less aluminum. It’s also the story with American farmers, who keep getting bigger harvests while using less land, water, and fertilizer. Magnet makers found ways to use fewer rare earth metals when it looked as if China might cut off their supply.

Second, it often becomes possible to substitute one resource for another. Total US coal consumption started to decrease after 2007 because fracking made natural gas more attractive to electricity generators. If nuclear power becomes more popular in the United States (a topic we’ll take up in chapter 15), we could use both less coal and less gas and generate our electricity from a small amount of material indeed. A kilogram of uranium-235 fuel contains approximately 2–3 million times as much energy as the same mass of coal or oil. According to one estimate, the total amount of energy that humans consume each year could be supplied by just seven thousand tons of uranium fuel.

Third, companies can use fewer molecules overall by making better use of the materials they already own. Improving CNW’s railcar utilization from 5 percent to 10 percent would mean that the company could cut its stock of these thirty-ton behemoths in half. Companies that own expensive physical assets tend to be fanatics about getting as much use as possible out of them, for clear and compelling financial reasons. For example, the world’s commercial airlines have improved their load factors—essentially the percentage of seats occupied on flights—from 56 percent in 1971 to more than 81 percent in 2018.

Finally, some materials get replaced by nothing at all. When a telephone, camcorder, and tape recorder are separate devices, three total microphones are needed. When they all collapse into a smartphone, only one microphone is necessary. That smartphone also uses no audiotapes, videotapes, compact discs, or camera film. The iPhone and its descendants are among the world champions of dematerialization. They use vastly less metal, plastic, glass, and silicon than did the devices they have replaced and don’t need media such as paper, discs, tape, or film.

If we use more renewable energy, we’ll be replacing coal, gas, oil, and uranium with photons from the sun (solar power) and the movement of air (wind power) and water (hydroelectric power) on the earth. All three of these types of power are also among dematerialization’s champions, since they use up essentially no resources once they’re up and running.

I call these four paths to dematerialization slim, swap, optimize, and evaporate. They’re not mutually exclusive. Companies can and do pursue all four at the same time, and all four are going on all the time in ways both obvious and subtle.

Innovation is hard to foresee. Neither the fracking revolution nor the world-changing impact of the iPhone’s introduction were well understood in advance. Both continued to be underestimated even after they occurred. The iPhone was introduced in June of 2007, with no shortage of fanfare from Apple and Steve Jobs. Yet several months later the cover of Forbes was still asking if anyone could catch Nokia.

Innovation is not steady and predictable like the orbit of the Moon or the accumulation of interest on a certificate of deposit. It’s instead inherently jumpy, uneven, and random. It’s also combinatorial, as Erik Brynjolfsson and I discussed in our book The Second Machine Age. Most new technologies and other innovations, we argued, are combinations or recombinations of preexisting elements.

The iPhone was “just” a cellular telephone plus a bunch of sensors plus a touch screen plus an operating system and population of programs, or apps. All these elements had been around for a while before 2007. It took the vision of Steve Jobs to see what they could become when combined. Fracking was the combination of multiple abilities: to “see” where hydrocarbons were to be found in rock formations deep underground; to pump down pressurized liquid to fracture the rock; to pump up the oil and gas once they were released by the fracturing; and so on. Again, none of these was new. Their effective combination was what changed the world’s energy situation.

Erik and I described the set of innovations and technologies available at any time as building blocks that ingenious people could combine and recombine into useful new configurations. These new configurations then serve as more blocks that later innovators can use. Combinatorial innovation is exciting because it’s unpredictable. It’s not easy to foresee when or where powerful new combinations are going to appear, or who’s going to come up with them. But as the number of both building blocks and innovators increases, we should have confidence that more breakthroughs such as fracking and smartphones are ahead. Innovation is highly decentralized and largely uncoordinated, occurring as the result of interactions among complex and interlocking social, technological, and economic systems. So it’s going to keep surprising us.

As the Second Machine Age progresses, dematerialization accelerates. Erik and I coined the phrase Second Machine Age to draw a contrast with the Industrial Era, which as we’ve seen transformed the planet by allowing us to overcome the limitations of muscle power. Our current time of great progress with all things related to computing is allowing us to overcome the limitations of our mental power and is transformative in a different way: it’s allowing us to reverse the Industrial Era’s bad habit of taking more and more from the earth every year.

Computer-aided design tools help engineers at packaging companies design generations of aluminum cans that keep getting lighter. Fracking took off in part because oil and gas exploration companies learned how to build accurate computer models of the rock formations that lay deep underground—models that predicted where hydrocarbons were to be found.

Smartphones took the place of many separate pieces of gear. Because they serve as GPS devices, they’ve also led us to print out many fewer maps and so contributed to our current trend of using less paper. It’s easy to look at generations of computer paper, from 1960s punch cards to the eleven-by-seventeen-inch fanfold paper of the 1980s, and conclude that the Second Machine Age has caused us to chop down ever more trees. The year of peak paper consumption in the United States, however, was 1990. As our devices have become more capable and interconnected, always on and always with us, we’ve sharply turned away from paper. Humanity as a whole probably hit peak paper in 2013.

As these examples indicate, computers and their kin help us with all four paths to dematerialization. Hardware, software, and networks let us slim, swap, optimize, and evaporate. I contend that they’re the best tools we’ve ever invented for letting us tread more lightly on our planet.

All of these principles are about the combination of technological progress and capitalism, which are the first of the two pairs of forces causing dematerialization.

#### No consistent link between economic freedom and inequality---capitalism net alleviates poverty.

Lazear 20, \*Edward P. Lazear was the Morris Arnold and Nona Jean Cox Senior Fellow at the Hoover Institution and the Davies Family Professor of Economics at Stanford University's Graduate School of Business.;(May 26th, 2020, “Socialism, Capitalism, And Income”, https://www.hoover.org/research/socialism-capitalism-and-income-0)

First, there is no evidence that, as a general matter, high-income groups benefit more from a move toward capitalism than low-income groups. The effect of changing state ownership and economic freedom on income is not larger for the rich than for the poor. Second, income growth is positively correlated across deciles. The situation is closer to a rising tide lifting all boats than to the fat man becoming fat by making the thin man thin. Finally, there is no consistent evidence across the large number of countries and time periods examined of any strong and widespread link between income growth and inequality. There are examples, like China, where income growth was coupled with large increases in inequality, but others like Chile, where strong income growth came about without much change in inequality, and South Korea, where inequality declined slightly as economic freedom and income grew over time.

Transfers and redistribution present the most complex picture of state involvement.

Transfers from rich to poor through the tax system are a luxury that only rich countries seem to be able to afford and are not a product of socialism per se. There is a very high correlation (-.67 in 2010) between contemporaneous median income and the low transfer index across countries.

High transfer countries like those in Scandinavia and other rich parts of Europe have primarily private ownership and economic freedom more like what prevails in the United States than in socialist countries. The poor definitely—and unsurprisingly—seem to benefit from higher transfers at a point in time. But the high taxes that generally go along with transfers do result in low income growth for median and high-income groups within a given country over time.

A similar pattern exists with respect to rule of law. The contemporaneous relation of rule of law to income is strong, but this seems to reflect the fact that countries that are wealthy demand rule of law rather than the reverse. Low state ownership at a point in time is a more consistent predictor of income growth within a country over the following decade than is rule of law at that same point in time.

Finally, not all transitions are alike. The Eastern European countries and the former Soviet Union saw large transitory declines in incomes for all groups during their transition to the market and the poor were more adversely affected than the rich. In China, and to a lesser extent India, market reforms brought about almost uninterrupted income growth. Venezuela provides an opposite example, moving from a more market-oriented economy to a socialist one.

Inequality fell slightly, but income growth was low for all groups and the poor have not regained the income levels that they had at the peak during the 1990s. The evidence suggests that it is economic shocks rather than transitions that disproportionately affect the poor. Transition from a command structure to the market is but one example of such a shock.

In sum, most income groups benefit from moves away from socialist command structures to free-market capitalism, but transfers can at least in the short run improve the well-being of those worst off.

#### Growth increases stability and disincentivizes conflict and expansionism---decline causes war.

Szayna et al 17, Research department director of the Defense and Political Sciences Department and a senior political scientist at the RAND Corporation. He has over 30 years of experience in national security policy and defense analysis. From 1997 to 2011 he served as associate director of the Strategy, Doctrine, and Resources Program in RAND's Army Research Division. His research has focused on aspects of strategic planning for the U.S. armed forces, post-conflict stability and reconstruction operations, and coalition interoperability. He gave testimony for the U.S. House of Representatives and has been a keynote speaker at a number of defense conferences. Szayna received a B.A. in history and philosophy from Villanova University and an M.A. in international relations from Claremont Graduate School. Also Angela O’Mahony, Jennifer Kavanagh, Stephen Watts, Bryan Frederick, Tova C. Norlen, Phoenix Voorhies. (“Conflict Trends and Conflict Drivers: An Empirical Assessment of Historical Conflict Patterns and Future Conflict Projections”. 2017. https://www.rand.org/pubs/research\_reports/RR1063.html)

There are a number of factors that could lead to discontinuous changes in this metric. For example, a global economic downturn could lead to sharp reductions in development aid that could threaten any improvements in governance that had been made with the benefit of that assistance. Alternatively, a major jump in global energy costs could induce widespread fiscal crises similar to those of the 1970s and 1980s, ultimately leading to reduced state capacity. The branch scenario in red projects essentially no improvements in state capacity over the period in question, so larger changes would entail the rapid erosion of the capacity of states that are already relatively capable. Such changes are certainly possible, but they would constitute an example of nonlinear disruptive change. On balance, our projection is that state capacity is likely to continue to improve, which will tend to exert a downward pressure on the likelihood of intrastate conflict. Prevalence of Consolidated Democracies Consolidated democracies are less likely to fight one another and to be involved in internal conflict. While this correlation is clear, the mechanism by which democracies reduce conflict is more contested. The literature on interstate conflict has focused on the greater transparency and consistency of democratic regimes that allow them to credibly commit to peaceful solutions to disputes and the possibility that domestic norms and greater political accountability may make democratic states less likely to pursue violent conflicts.8 There are fewer arguments that the greater ability of consolidated democracies to resolve grievances within the political system leads to less intrastate conflict.9 We note, however, that partial democracies or the process of democratization itself may not be particularly peaceful and may even be associated with an increase in conflict.10 Given the importance of consolidated democracy in the literature on conflict, there is already a great deal of work in the academic literature on measurement of democracy. Several aggregate measures of democracy have been developed that include the competitiveness of elections; the state’s respect for civil, political, and minority rights; and freedoms of the press and religion. The most widely used measure of consolidated democracy, and the one we employ, comes from the Polity project. By coding a wide range of regime characteristics, such as political 8 Arend Lijphart, Democracies: Patterns of Majoritarian and Consensus Government in Twenty-One Countries, New Haven, Conn., and London: Yale University Press, 1984; Peter Liberman, Does Conquest Pay? The Exploitation of Occupied Industrial Societies, Princeton, N.J.: Princeton University Press, 1996; Charles Lipson, Reliable Partners: How Democracies Have Made a Separate Peace, Princeton, N.J.: Princeton University Press, 2003. 9 Håvard Hegre, Tanja Ellingsen, Scott Gates, and Nils Petter Gleditsch, “Toward a Democratic Civil Peace? Democracy, Political Change, and Civil War, 1816–1992,” American Political Science Review, Vol. 95, No. 1, March 2001, pp. 33–48; Christian Davenport, State Repression and the Domestic Democratic Peace, New York, N.Y.: Cambridge University Press, 2007. 10 Hegre et al., 2001; Lars-Erik Cederman, Kristian Skrede Gleditsch, and Simon Hug, “Elections and Ethnic Civil War,” Comparative Political Studies, Vol. 46, No. 3, 2012, pp. 387–417. 49 competition and constraints on the executive, an aggregate “Polity score” is produced, ranging from –10 to 10. Values of 6 or higher are typically used to identify the presence of a democracy, with a more conservative measurement of 8 or higher often used to identify consolidated democracies. We use this metric to calculate the percentage of all states that are consolidated democracies, with the historical values denoted by the black line in Figure 3.2. Figure 3.2. Prevalence of Consolidated Democracies SOURCE: Historical data: Monty G. Marshall and Keith Jaggers, Polity IV Data Set [Computer file; version p4v2012], College Park, Md.: Center for International Development and Conflict Management, University of Maryland, 2002; projections calculated by authors. We projected the baseline scenario by fitting a trend line to the historical data and calculating the future values.11 This projection is represented in the figure by the gray line. We calculated the two branch scenarios as one standard deviation above and below the baseline projection; they are shown in the figure by the blue and red lines, respectively. Discontinuous growth in the prevalence of democracies could result from various tippingpoint effects. If a high percentage of the world’s population were governed through democracy, other forms of government may come to be seen as illegitimate, and greater international pressure may be brought to bear to remove them. Within the time frame of our study, a dramatic reversal in the prevalence of consolidated democracies appears to be less likely. The reversion of 11 The trend line was fit using a generalized linear model linked to a binomial logit function. The resulting projections are therefore bounded between 0 and 1 (in this case, 0 and 100 percent). The model used in Figure 3.2 has a Pearson statistic (1/df) of .0037, suggesting a high degree of fit with the data. 50 consolidated democracies to autocracies historically has been extremely rare and is unlikely in the absence of extreme economic decline, the conquest of democracies by more powerful autocracies, or both. Either of these potential paths is likely to lead directly to increases in future conflict levels as well. Degree of Ethnic and Sectarian Polarization The academic literature generally agrees that a high level of ethnic and sectarian polarization is not sufficient by itself to cause conflict either within or between states. However, there is also agreement that in the intrastate context, where group mobilization occurs along ethnic lines, identity can become a significant contributing factor for violence, especially when strengthened by socioeconomic and sociopolitical grievances. Consequently, we identified the degree of ethnic and sectarian polarization as one of the primary factors likely to affect the level of intrastate conflict in the future. Evidence also shows that while ethnicity may not lead to conflict by itself, it may work to prolong conflicts and increase the intensity of violence in those conflicts that are already occurring.12 Such effects will most likely be strengthened if ethnic groups are deliberately disadvantaged by the state or if they are territorially based and have secessionist or separatist demands.13 Scholars tend to agree that ethnic and sectarian polarization, while a strong predictor for increased levels of intrastate conflict, is not a strong driver for conflicts between states. However, if regional and international actors become involved in intrastate conflicts, or if conflicts spread across borders, such polarization could also affect levels of interstate conflict. Such a scenario is especially likely where ethnic kin-groups in neighboring states become involved with secessionist movements.14 Quantifying ethnic and sectarian polarization is inherently difficult. While various measures have been tried, such as linguistic differences (e.g., ethno-linguistic fractionalization) or religious preferences, they are often criticized for not capturing the cleavage that gives rise to political mobilization. For example, different ethnic groups may share the same religion, and one ethnic group may speak multiple languages. It can also be difficult to determine when certain identities in a society are increasing in salience, and when they are becoming less relevant. One prominent 12 Rajat Ganguly and Raymond Taras, Understanding Ethnic Conflict: The International Dimension, Longman Publishers, 2002; Fearon and Laitin, 2003; and Daniel Bar-Tal, “Sociopsychological Foundations of Intractable Conflicts,” American Behavioral Scientist, Vol. 50, No. 11, 2007. 13 Gurr, 1970; Stephen M. Saideman, and William R. Ayres, “Determining the Causes of Irredentism: Logit Analyses of Minorities at Risk Data from the 1980s and 1990s,” Journal of Politics, Vol. 62, No. 4, November 2000, pp. 1126–1144; Monica Duffy Toft, The Geography of Ethnic Violence: Identity, Interests, and the Indivisibility of Territory, Princeton, N.J.: Princeton University Press, 2003. 14 John A. Vasquez, and Brendan Valeriano, “Territory as a Source of Conflict and a Road to Peace,” in Jacob Bercovitch, Viktor Kremenyuk, and I. William Zartman, eds., The Sage Handbook of Conflict Resolution, Los Angeles, Calif.: SAGE, 2009, pp. 193–209. 51 attempt to quantify relevant ethnic identities is the Minorities at Risk data set at the University of Maryland, which identifies minority groups by their “at risk” status—that is, by the extent to which they are disadvantaged in their relationships with other groups in the state in which they reside. However, the Minorities at Risk data identify such “at risk” groups somewhat subjectively, and the project does not claim to be comprehensive. An alternative, objective measure is to look for the degree of formal discrimination against ethnic, religious, or linguistic groups. The creation or removal of official laws providing for formal discrimination can help to identify states where identity-based grievances may become more or less salient. For capturing the degree of ethnic and sectarian polarization, therefore, we looked at the percentage of states with formal discrimination against minorities, where such minority groups make up at least 5 percent of the state’s population. We used the Ethnic Power Relations data set (EPR), which tracks the extent of access to state power for all politically relevant ethnic groups in every country of the world from 1946 to 2013. It includes annual data on more than 733 groups and codes the degree to which their representatives held executive-level state power—from total control of the government to being formally barred from holding political office. While the disadvantage of such a proxy may be that it potentially fails to capture some of the unofficial social discrimination that can lead to group mobilization, the advantage is that it allows for a more objective measure of sectarian tension. The overall levels of ethnic or sectarian polarization in the figure below may therefore be understated, but we can have more confidence in the general trend line than we could with more subjective data sources. We projected the baseline scenario by fitting an exponential trend line to the available historical data and calculating the future values.15 The projection is shown by a gray line in Figure 3.3. We calculated the two branch scenarios as one standard deviation above and below the baseline projection; they are shown by a red and blue line, respectively. 15 The exponential trend line fit to the data has the equation: y = 0.3098e-0.012x. The trend line has a high degree of fit with the data, with an R² of 0.85. 52 Figure 3.3. Percentage of States with Discriminated Minorities SOURCE: Historical data: Andreas Wimmer, Lars-Erik Cederman, and Brian Min, “Ethnic Politics and Armed Conflict: A Configurational Analysis of a New Global Data set,” American Sociological Review, Vol. 74, No. 2, 2009, pp. 316–337; projections calculated by authors. Discontinuous change in this variable may occur as a result of several factors. Historically, ethnic and sectarian factors often have increased in relevance after the breakup of larger states and empires, including the breakup of the Soviet Union in the early 1990s, or the end of colonialism in the 1960s. The breakup of other large, multiethnic states in the future could result in a similar outcome. Extremely high levels of resource stress because of population pressures also could prompt increased ethnically based conflict within states. Ethnic and sectarian polarization and grievances are latent in many societies, and may become politically important in order to mobilize groups to violence under conditions of severe resource or economic privation. Rate of Economic Growth Economic growth affects the prevalence of conflict in several ways. While territorial expansion traditionally has been a major cause of interstate war, states with higher levels of economic development may be less motivated to pursue such expansion because of the lower relative value of land inputs in an industrialized economy. Moreover, their reliance on international capital markets may increase the potential costs of disruptions from serious 53 international crises.16 At the intrastate level, economic growth (if broadly shared) reduces grievances, bolsters the capacity of the state to handle security challenges, and increases the population’s opportunities for licit employment, thus raising the opportunity costs of participating in rebellions or insurgencies.17 Growth benefits that accrue along ethnic or sectarian lines, however, might increase the potential for intrastate conflict, as discussed in the previous section, and sharp declines in the rate of economic growth could be associated with an increased risk of internal conflict as well.18 Therefore, there are at least two different concepts that any operationalization of this factor should attempt to capture: the overall level of economic development and changes in the rate of economic growth. Over the short term, wealthy countries tend to remain wealthy and poor countries tend to remain poor, and their degree of wealth may have a strong effect on their overall likelihood of being involved in conflict. In addition, sharp declines in the rate of growth for a range of states may increase their likelihood of intrastate conflict in particular.

#### Transition is impossible.

Büchs & Koch 18. \* Associate Professor in Sustainability, Economics and Low Carbon Transitions at the Sustainability Research Institute, University of Leeds. For CREDS, she is working on the Excess Travel team, modelling high travel demand and identifying interventions for high travel demand reduction. \*\* Professor at Lund University. Visiting Scholar / Guest Professor at Universidad Complutense de Madrid, Erasmus University Rotterdam, Glasgow University, Programa de Economía del Trabajo (Santiago de Chile), Lund University (prior to my current employment), GESIS - Leibniz Institute of the Social Sciences in Cologne, University of Edinburgh and at the Institute for Advanced Sustainability Studies in Potsdam. (September 20th, 2018, “Challenges for the degrowth transition: The debate about wellbeing.” <https://doi.org/10.1016/j.futures.2018.09.002>)

‘Locked’ into growth and rising wellbeing expectations? Having set out in the previous sections the discussion about wellbeing in the degrowth discourse so far, we now examine two additional wellbeing related challenges to the political feasibility of degrowth. First, it can be argued that the dominance of growth-based economics has taken on a ‘structural’ quality in current societies. This means that a transition to degrowth that can successfully support wellbeing would need to involve very fundamental social, economic, political, cultural and technological changes – some of which are difficult to achieve through political means. Second, these changes would ideally need to happen very fast, to present a meaningful response to the climate change crisis. We argue here that the process of transition itself is likely to bring about challenges for achieving aspired wellbeing outcomes. Third, and based on the argument that the framework of universal basic needs is most appropriate for discussing wellbeing in a degrowth context, we raise the question how well (or not) applying this framework to think about wellbeing aligns with current societies’ wellbeing expectations. 3.1. Growth ‘lock in’ Economic growth, as an attribute of market capitalism, has structural properties – it is needed to stabilise modern societies as it provides employment, public sector provision through tax revenues, rising wages, and hence social stability ([Petridis et al., 2015: 178](https://www.sciencedirect.com/science/article/pii/S0016328718300715" \l "bib0375), [Rosa et al., 2017](https://www.sciencedirect.com/science/article/pii/S0016328718300715" \l "bib0405)). Economic growth is organised around and shapes a range of tightly coupled structures, including institutions, norms, discourses, culture, technologies, competences, identities, etc. Historically speaking, growth is a fairly recent phenomenon which only picked up in the 19th century together with the industrialisation of Western economies. In a co-evolutionary process, a range of institutions developed which are now coupled to a growth-based capitalist economy, including the nation state, representative democracy, the rule of law and current legal, financial, labour market, education, research, and welfare systems. These are based on philosophies which emerged to justify and give meaning to these institutions, for instance on individualism, freedom, justice, sovereignty, or power. The embeddedness of the growth-based capitalistic economic system in these co-evolved institutions and ways of thinking makes it difficult to transition to a degrowth system because the change of the economic system would need to involve a parallel transformation of those coupled systems. In Luhmann’s words, the constitution of the current system “defuturises” ([Luhmann, 1976: 141](https://www.sciencedirect.com/science/article/pii/S0016328718300715" \l "bib0305)) the future, it reduces the “openness” of the future; “path dependency” or even “lock-in” are related expressions that capture this idea. Two examples which directly link to people’s wellbeing can illustrate this point: the relationship between welfare states and growth, and between growth and people’s mind-sets and identities. The satisfaction of needs is influenced by the character of socio-economic institutions, including the ways in which work, welfare, retirement, health, education and family life are governed; as well as by the structure of the distribution of a range of resources that support health and wellbeing. Welfare state institutions play an important role in these areas in high income economies, and they are closely coupled with economic growth ([Bailey, 2015](https://www.sciencedirect.com/science/article/pii/S0016328718300715" \l "bib0015)). Rising economic prosperity in the post Second World War period provided the resources for establishing welfare states in Europe and elsewhere, and the funding of current welfare state institutions is closely coupled to economic growth as it largely depends on income-related taxes and [social security contributions](https://www.sciencedirect.com/topics/social-sciences/social-security-contributions). The positive relationship between economic growth and welfare states in many ways also works the other way round: welfare states support growth by enhancing the population’s health and education levels, providing unemployment and minimum income benefits for people out of work. This helps to increase productivity, maintain consumer demand, and more generally contain and minimise social conflict through redistribution and institutionalised conflict resolution between employers and employees. Evidently, a fundamental [reorganisation](https://www.sciencedirect.com/topics/social-sciences/reorganization) of the economic and welfare system would be required under degrowth to sustain investments in health, education, and the reduction of poverty and [inequality](https://www.sciencedirect.com/topics/social-sciences/inequality). This will be crucial in a context of decreasing material and financial resources, because if left unmanaged, this could provide fertile ground for new social conflicts with potentially detrimental implications for wellbeing. Various degrowth authors have made suggestions for alternative welfare institutions and policies, including working time reduction and redistribution as mentioned above ([Victor & Rosenbluth, 2007](https://www.sciencedirect.com/science/article/pii/S0016328718300715" \l "bib0460)), a basic income ([Gorz, 1980](https://www.sciencedirect.com/science/article/pii/S0016328718300715" \l "bib0190); [Dietz & O’Neill, 2013: 94](https://www.sciencedirect.com/science/article/pii/S0016328718300715#bib0110)), and, from a Marxian perspective, the establishment of a cooperative economy in which businesses will be worker-owned and managed ([Blauwhof, 2012](https://www.sciencedirect.com/science/article/pii/S0016328718300715" \l "bib0020)). These are all relevant suggestions, however, it should not be underestimated how radical the changes to existing social systems are that these new institutions represent. They challenge deeply entrenched ways of thinking about rights, justice, freedom, private property, individual responsibility, etc. A change of these deeply rooted ‘logics’ on which these institutions are based is not impossible, but very difficult to steer with political means. This point closely links to the idea that economic growth is not only at the core of various socio-economic institutions but is also very deeply anchored in people’s minds, bodies and identities which is likely to make the transition to degrowth additionally challenging. The concept of social practices helps us understand the ways in which agents (and their mind-sets and bodies) and broader social structures are continuously implicated and reproduced in the performance of social life ([Büchs & Koch, 2017: ch. 6](https://www.sciencedirect.com/science/article/pii/S0016328718300715#bib0060)). From this perspective, economic growth is not just an external premise that actors can decide to act upon or not, but it is a principle with structural properties that is engrained in ways of thinking and acting – for the most part habitually. Growth thus becomes something that is perceived as ‘natural’ by the vast majority of actors. A range of scholars have argued that the growth paradigm is deeply embedded in people’s minds and bodies ([Göpel, 2016](https://www.sciencedirect.com/science/article/pii/S0016328718300715#bib0185); [Lane, 1991](https://www.sciencedirect.com/science/article/pii/S0016328718300715" \l "bib0285); [Welzer, 2011](https://www.sciencedirect.com/science/article/pii/S0016328718300715" \l "bib0475); [Büchs & Koch, 2017: ch. 6](https://www.sciencedirect.com/science/article/pii/S0016328718300715#bib0060)). This implies that people’s identities and life goals are closely aligned with the idea of growth – shaped by ideas of social progress, personal status and success through careers, rising income and consumption. Even seemingly alternative goals such as ‘personal fulfilment’ can be infused with ideas that remain tied to the growth paradigm, for instance if fulfilment is sought through high consumption and high emissions practices such as extensive long haul travel or expensive hobbies and gadgets. As [Meadows (1999)](https://www.sciencedirect.com/science/article/pii/S0016328718300715" \l "bib0325) has pointed out, the most effective, but also the most difficult step in system transformation is the shift of paradigms that underpin the system. Again, since this is difficult to influence politically, it presents a major hurdle for a departure from growth-based systems that also maintains wellbeing.