# 1AC

## Syllogism

#### Agents must be practical reasoners –

#### [1] Regress – we can always ask why we should follow a theory, so they aren’t binding because they don’t have a starting point. Practical reason solves – When we ask why we should follow reason, we demand a reason, which concedes to the authority of reason itself, so it’s the only thing we can follow

#### [2] Action Theory – every action can be broken down to infinite amounts of movements, i.e. me moving my arm can be broken down to the infinite moments of every state my arm is in. Only reason can unify these movements because we use practical reason to achieve our goals, means all actions collapse to reason

#### [3] Inescapability – the exercise of practical rationality requires that one regards practical rationality as intrinsically good – that justifies a right to freedom.

Wood07[Allen W. Wood, (Stanford University, California) "Kantian Ethics" Cambridge University Press, 2007, https://www.cambridge.org/core/books/kantian-ethics/769B8CD9FCC74DB6870189AE1645FAC8, DOA:8-12-2020 // WWBW rct st]

Kant holds that **the most basic act through which people exercise their practical rationality is that of setting an end** (G 4:437). **To set an end is, analytically, to subject yourself to the hypothetical imperative that you should take the necessary means to the end you have set** (G 4:417). This is the claim that you rationally ought to do something whether or not you are at the moment inclined to do it. It represents the action of applying that means as good (G 4:414) – in the sense of “good” that Kant explicates as: what is required by reason independently of inclination (G 4:413). Kant correctly infers that **any being which sets itself ends is committed to regarding its end as good in this sense, and also to regarding the goodness of its end as what also makes application of the means good** – that is, rationally required independently of any inclination to apply it. **The act of setting an end, therefore, must be taken as committing you to represent some other act (the act of applying the means) as good.** In doing all this, however, **the rational being must also necessarily regard its own rational capacities as authoritative for what is good in general.** For it treats these capacities as capable of determining which ends are good, and at the same time as grounding the goodness of the means taken toward those good ends. **But to regard one’s capacities in this way is also to take a certain attitude toward oneself as the being that has and exercises those capacities. It is to esteem oneself – and also to esteem the correct exercise of one’s rational capacities in determining what is good both as an end and as a means to it.** One’s other capacities, such as those needed to perform the action that is good as a means, are also regarded as good as means. **But that capacity through which we can represent the very idea of something as good both as end and as means is not represented merely as the object of a contingent inclination, nor is it represented as good only as a means. It must be esteemed as unconditionally good, as an end in itself. To find this value in oneself is not at all the same as thinking of oneself as a good person. Even those who misuse their rational capacities are committed to esteeming themselves as possessing rational nature.** It also does not imply that a more intelligent person (in that sense, more “rational”) is “better” than a less intelligent one. The self-esteem involved in setting an end applies to any being capable of setting an end at all, irrespective of the cleverness or even the morality of the end setting. Kant’s argument supports the conclusion, to which he adheres with admirable consistency throughout his writings, that all rational beings, clever or stupid, even good or evil, have equal (absolute) worth as ends in themselves. For Kantian ethics **the rational nature in every person is an end in itself whether the person is morally good or bad.**

#### [4] Epistemology – ethics must begin a priori, meaning they can’t be derived from our experience.

#### [A] Representations of space – we can only access our experiences if we can interpret the space around us, but that requires the a priori. Thinking of the absence of space is impossible – we can think of empty space but never the lack of space itself. Imagining space through a priori thoughts is the only way we can even begin to have a conception of interpreting experience; we need to be able to construct space through our minds.

#### [B] Separateness – if space is based on experience, it must be formed from objects separate to us outside of our reasoning abilities. But to represent objects as separate from us, we would already need to assume space exists in the first place to have a concept of “separateness,” so to represent space as something separate from us would be incoherent.

#### [C] Uncertainty – every person has different experiences so we can’t have a unified perspective on what is good if we each have different conceptions of it – even if we can roughly aggregate it’s not enough because there’ll always be a case when it fails so the framework o/w on probability.

#### [D] Is/Ought Gap – experience in the phenomenal world only tells us what is, not what ought to be. But it’s impossible to derive an ought from descriptive premises, so there needs to be additional a priori premises within the noumenal world to make a moral theory.

#### We have a unified perspective – If I say that 2+2=4, I understand not only that I know that 2+2=4, but that everyone around can arrive at the same conclusion too because they create practical syllogisms to justify their conclusion. But, willing a maxim that violates the freedom of others is a contradiction – that’s bad.

Engstrom, Stephen (Professor of Ethics at UPitt). “Universal Legislation As the Form of Practical Knowledge.” <https://ld.circuitdebater.org/w/images/8/89/Engstrom_-_Universal_Legislation_as_a_Form_of_Practical_Knowledge.pdf> rct st

Given the preceding considerations, it’s a straightforward matter to see how **a maxim of action that assaults the freedom of others with a view to furthering one’s own ends results in a contradiction when we attempt to will it as a universal law** in accordance with the foregoing account of the formula of universal law. **Such a maxim would lie in a practical judgment that deems it good on the whole to act to limit others’ outer freedom, and hence their self-sufficiency, their capacity to realize their ends, where doing so augments, or extends, one’s own outer freedom and so also one’s own self-sufficiency.** In this passage, Kant mentions assaults on property as well as on freedom. But since property is a specific, socially instituted form of freedom, I have omitted mention of it to focus on the primitive case. Now on the interpretation we’ve been entertaining, **applying the formula of universal law involves considering whether it’s possible for every person—every subject capable of practical judgment—to share[s] the practical judgment asserting the goodness of every person’s acting according to the maxim in question.** Thus in the present case the application of **the formula involves considering whether it’s possible for every person to deem good every person’s acting to limit others’ freedom, where practicable, with a view to augmenting their own freedom**. Since here **all persons are on the one hand deeming good both the limitation of others’ freedom and the extension of their own freedom,** while on the other hand, insofar as they agree with the similar judgments of others, **also deeming good the limitation of their own freedom and the extension of others’ freedom, they are all deeming good both the extension and the limitation of both their own and others’ freedom.**

#### Only a collective will that can have power over individuals can guarantee the enforcement of good maxims. Thus, the standard is consistency with the omnilateral will.

#### To clarify, the framework does not value the ability to set any end, but rather the ability to decide which ends to pursue.

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**Independence is the basic principle of right. It guarantees equal free- dom, and so requires that no person be subject to the choice of another.** The idea of independence is similar to one that has been the target of many objections. The basic form of almost all of these focuses on the fact that **any set of rules prohibits some acts that people would otherwise do**, so that, for example, **laws prohibiting personal injury** and property dam- age **put limits on the ability of people to do as they wish.** Because differ- ent **people have incompatible wants, to let one person do what [they] want[] will typically require preventing others from doing what they want.** Thus, it has been contended, **freedom cannot even be articulated as a political value, because freedoms always come into conflict,** and **the only way to mediate those conflicts is by appealing to goods other than freedom.** As I will explain in more detail in Chapter 2, such an objection has some force against freedom understood as the ability to do whatever you wish, but fails to engage Kant’s conception of independence. **Limits on indepen- dence generate a set of restrictions that are by their nature equally appli- cable to all.** Their **generality depends on the** fact that they **abstract from** what Kant calls **the “matter” of choice—the particular purposes being pursued—and focus instead on the capacity to set purposes without hav- ing them set by others.** **What you can accomplish depends on what oth- ers are doing—someone else can frustrate your plans by getting the last quart of milk in the store. If they do so, they don’t interfere with your in- dependence, because they impose no limits on your ability to use your powers to set and pursue your own purposes. They** just change the world in ways that **make your means useless for the particular purpose you would have set. Their entitlement to change the world in those ways just is their right to independence.** In the same way, your ability to enter into cooperative activities with others depends upon their willingness to co- operate with you, and their entitlement to accept or decline your invita- tions is simply their right to independence

#### Impact calc –

#### [1] Only the omnilateral will can motivate action – it’s external to wills of agents so it can obligate them all to follow certain rules – unilateral wills fail since they would involve one person coercing other people under their will and there would be no obligation to follow a person.

#### [2] Consequences fail – A) Induction Fails – You only know induction works because past experiences have told you it has, but that is in itself a form of induction, so you use induction to prove induction – that’s circular B) Butterfly Effect – Every action has an infinite number of consequences that stem from it – me picking up a pen could cause nuclear war a hundred years down – you can’t quantify the infinite amount of pain and pleasure to come C) Aggregation fails – everyone has different feelings of pain and pleasure, so you can’t universalize that and say it’s good – it’s impossible to measure something that’s completely subjective D) Culpability – any consequence can lead to another consequence so it’s impossible to assign obligations since you can’t pinpoint a specific actor that caused a consequence.

#### Prefer additionally –

#### [1] Oppression is caused by arbitrary exclusion of others – only universalizability makes sure that include everyone equally.

Farr, Arnold. Can a Philosophy of Race Afford to Abandon the Kantian Categorical Imperative? 2002, blog.ufba.br/kant/files/2009/12/Can-a-Philosophy-of-Race-Afford-to-Abandon-the.pdf.

The attack on Kantian formalism began with Hegel’s criticism of the Kantian philosophy.14 The list of contemporary theorists who follow Hegel’s line of criticism is far too long to deal with in the scope of this paper. Although these theorists may approach the problem of Kantian formalism from a variety of angles, the spirit of their criticism is basically the same: The universality of the categorical imperative is an abstraction from one’s empirical conditions. Kant is often accused of making the moral agent an abstract, empty, noumenal subject. Nothing could be further from the truth. **The** Kantian **subject is an embodied, empirical, concrete subject.** However, this concrete subject has a dual nature. Kant claims in the Critique of Pure Reason as well as in the Grounding that human beings have an intelligible and empirical character.15 It is impossible to understand and do justice to Kant’s moral theory without taking seriously the relation between these two characters. The very concept of morality is impossible without the tension between the two. By “empirical character” Kant simply means that we have a sensual nature. **We are physical creatures with physical drives or desires. The very fact that I cannot simply satisfy my desires without considering the rightness or wrongness of my actions suggests that my empirical character must be held in check by something,** or else I behave like a Freudian id. **My empirical character must be held in check by my intelligible character, which is the legislative activity of practical reason. It is through our intelligible character that we formulate principles that keep our empirical impulses in check. The categorical imperative is the supreme principle of morality that is constructed by the moral agent in his/her moment of self-transcendence**. What I have called self-transcendence may be best explained in the following passage by Onora O’Neill: **In restricting our maxims to those that meet the test of the categorical imperative we refuse to base our lives on maxims that necessarily make our own case an exception. The reason why a universilizability criterion is morally significant is that it makes our own case no special exception** (G, IV, 404). In accepting the Categorical Imperative we accept the moral reality of other selves, and hence the possibility (not, note, the reality) of a moral community. The Formula of Universal Law enjoins no more than that we act only on maxims that are open to others also.16 O’Neill’s description of the universalizability criterion includes the notion of self-transcendence that I am working to explicate here to the extent that like self-transcendence, **universalizable moral principles require that the individual think beyond his or her own particular desires. The individual is not allowed to exclude others as rational moral agents who have the right to act as he acts in a given situation**. For example, if I decide to use another person merely as a means for my own end I must recognize the other person’s right to do the same to me. I cannot consistently will that I use another as a means only and will that I not be used in the same manner by another. Hence, **the universalizability criterion is a principle of consistency and a principle of inclusion.** That is, in choosing my maxims I attempt to include the perspective of other moral agents.

#### [2] Changes in the subject stem from practical reason: that means the core of the subject remains the same, it’s an internal link.

**Tiberius** [Tiberius, Valerie. “Practical Reason and the Stability Standard.” Ethical Theory and Moral Practice, Vol. 5, No. 3, Papers Presented to the Annual Conference of the British Society for Ethical Theory, Glasgow, 13-15 July 2001 (Sep. 2002), pp. 339-354. Springer] \*\* brackets for clarity //rct phs st

The notion of stability at work here is not temporal endurance. The kind of reflection that is not to change the agent's attitudes is reflection she deems appropriate and the notion of 'appropriate reflection' here is irreducibly normative.5 Judgments about continued or stable attitudes are normative judgments, not empirical predictions. The emphasis on stability, then, should not be taken to imply that there is one, fixed, stable pattern that provides the ultimate and perpetual goal of all reasoning. The ideally stable pattern of attitudes I have described above is not a static ideal that could be represented by a hypothetical, idealized agent whose choices determine the choices that actual people have reason to make. Because on my view what counts as appropriate reflection is inherently normative, and the norms of appropriate reflection evolve along with the people who endorse them, there is no fact of the matter about what an ideally stable version of a particular person would choose that can be determined outside of the context of that person's reflection and deliberation. The ideal of stability, then, is a regulative ideal, in the sense that we can use it to make judgments about the ways in which our own choices could be improved. It is not a fixed ideal that determines the correct choices independently of the process of reasoning.6 The point of the ideal is to urge us toward improvement, not to describe a state of perfection. An important implication of taking the ideal of stability in this way is that what a person has reason to choose is likely to change over time as the person has new experiences and improves her own views about ideal reflection. Furthermore, taking the ideal of stability to be one [is] of improvement rather than perfection also has implications for the appropriate goal of reasoning. According to the stability standard interpreted as a norm of improvement, it is not the goal of reasoners to arrive at a stable state at which there is no further need for reasoning. Rather, a reasoner's proper goal is to make choices that are part of the most stable pattern now, with the knowledge that what choice will be most stable in the future might very well be different.7

## Offense

#### I defend “Resolved: The appropriation of outer space by private entities is unjust.” as a general principle.

#### I’m willing clarify or specify whatever you want me to in CX if it doesn’t force me to abandon my maxim. Check all interps in CX – I could’ve met them before the NC and abuse would’ve been solved. PICs don’t negate: a] General principles don’t defend an absolute action, so they tolerate exceptions b] Fails under my framework because they create arbitrary exceptions, which means it’s not universalizable.

#### Property is an external right – it is something that we don’t innately have a right to by virtue of existing but acquire once we exercise our freedom. However, this is impossible when there is no state to create property divisions.

Stilz 1 (Anna Stilz, Anna Stilz is Laurance S. Rockefeller Professor of Politics and the University Center for Human Values. Her research focuses on questions of political membership, authority and political obligation, nationalism and self-determination, rights to land and territory, and collective agency. , 2009, accessed on 12-18-2021, Muse.jhu, "Project MUSE - Liberal Loyalty", https://muse.jhu.edu/book/30179)//phs st

One key reason Kant does not accept the skeptical view of political authority, as put forward by Simmons, is that, when it comes to rights over external resources, he does not see the value of freedom as having the moral structure that Simmons attributes to it. Kant and Simmons, however, (along with Rousseau, whom we will examine in the next chapter) do share the same conception of freedom at the most basic level, a conception we can call freedom as independence. Since this notion of freedom as independence is one I will use throughout this book, it is worth a few words of clarification here. To be free-as-independent, as all these thinkers conceive it, is not to be forced to obey the will of another person; it is to enjoy a sphere of independent self-government within which others cannot interfere. This notion of freedom is thus particularly concerned with the relationships between persons. It is not concerned in the same way with whatever restrictions may be placed on our choices by natural obstacles or constraints. Being unable to hike up a mountain because a tree blocks the path does not make me less free, on the freedom- as-independence view. But being unable to hike up a mountain because you have tied me up, or because I have to seek your permission to engage in any leisure activities, does make me unfree. Freedom as independence, therefore, always refers to a relation between one person’s will and anoth- er’s: to be unfree is to be forced to obey someone else’s will rather than one’s own. For both Kant and Simmons, attaining this sort of freedom as indepen- dence requires people possess rights of property in external things. This is because the only way one person can be free from subjection to another person’s will is to have exclusive control over a sphere of the physical world within which those others are not allowed to interfere with his actions. And to have that sort of control is to have property. This exclusive sphere of property includes (a) rights of control over one’s own body and (b) rights of control over specific objects. While Kant agrees with Sim- mons that freedom requires property, he also claims that property is only possible through the state. As a result, he concludes that freedom as inde- pendence is only possible through the state. Since Kant believes that there is a basis in natural right for claiming private property, and he believes that private property requires the state, he concludes that the state is not an optional or voluntary association. Indeed, he goes so far as to suggest that we may be forced into the state against our will.18 Kant: External Freedom as Independence How does Kant reach these conclusions? Kant begins his Metaphysics of Morals with the argument that every human being possesses an innate right to external freedom, which as we have seen, is a right to indepen- dence from being coerced or constrained by another person’s will in car- rying out our choices. This, he says, is the “only original right belonging to man by virtue of his humanity.” Freedom (independence from being constrained by another’s choice [Willku ̈ r]), insofar as it can coexist with the freedom of every other in accordance with a universal law, is the only original right belonging to every man by virtue of humanity. This principle of innate freedom al- ready involves the following authorizations, which are not really dis- tinct from it (as if they were members of the division of some higher concept of a right): innate equality, that is, independence from being bound by others to more than one can in turn bind them; hence a human being’s quality of being his own master (sui iuris), as well as being a human being beyond reproach (iusti), since before he performs any act affecting rights he has done no wrong to anyone; and finally, his being authorized to do to others anything that does not in itself diminish what is theirs, so long as they do not want to accept it—such things as merely communicating his thoughts to them, telling or promis- ing them something, whether what he says is true and sincere or untrue and insincere (veriloquium aut falsiloquium); for it is entirely up to them whether they want to believe him or not. (MM, 6:238) As the sole human right, for Kant, the right to freedom as independence gives us several kinds of prerogatives. First, it gives us the title to do any- thing to other people that we may do to them without actually diminish- ing their freedom as independence, like simply communicating our thoughts to them: it thus grounds rights to freedom of speech and thought. Second, it gives us title to insist that we not be bound by any restrictions to freedom that are not reciprocal restrictions, that do not bind other people in the same way: it justifies a right to equal treatment. In addition, Kant holds that the innate right includes a minimum of bodily inviolability: someone who physically interferes with my body without my consent “affects and diminishes what is internally mine (my freedom), so that his maxim is in direct contradiction with the axiom of right” (MM, 6:250). Since my faculty of self-determination can only be exercised through my body, anyone who uses direct physical force on my body interferes with all possible expressions of my freedom.19 These titles—to freedom of thought and communication, to equal treatment, and to a minimum of bodily inviolability—together comprise our original claims to freedom. Unlike internal or metaphysical freedom, though, on Kant’s theory, ex- ternal freedom is defined by the individual’s capacity to set and pursue ends in the outside world, by acting. So in order to be externally free, I must be able to take up and use physical means—at the very least, spaces and also potentially objects—in order to carry out my choices. I am not externally free merely by thinking or wishing or setting myself a goal, without taking any concrete actions; I cannot be externally free in chains. I am externally free only when I can do something to further my projects. And this means that I must be able to actually take up some means to my ends without fear of your interference with my acts. External freedom thus involves the use of pieces of the physical world, where this use is potentially subject to interference by other persons.20 While all rights involve some sort of claim to external freedom, Kant draws a important distinction between rights that belong to us innately (like all those described above) and those we must acquire. Here, Kant differentiates between what he calls the internal and external “mine” (meum). Some rights—like the innate titles—are internally mine: I am born with them; they are my inalienable property; I do not have to do anything to acquire them. Other rights are acquired, and so belong to what Kant calls the external mine: these rights do not belong to us by birth, but require a particular act to be established (MM, 6:237). Kant refers to three broad kinds of acquired rights: rights to “(1) a (corporeal) thing external to me; (2) another’s choice to perform a specific deed (praestatio); (3) another’s status in relation to me” (MM, 6:248). These three kinds of acquired rights specify (1) my claims of ownership or prop- erty; (2) my contractual claims against others; and (3) my status as an occupant of a role, as a spouse, parent, or head of household.21 And shortly after introducing the innate right, interestingly, Kant suggests that it can more or less be laid aside in his political theory, in favor of a discus- sion of acquired rights: “It can be put in the prolegomena and the division of the doctrine of right can refer only to what is externally mine or yours” (MM, 6:238). Most of Kant’s political theory, then, is concerned not with the innate right, but instead with acquired rights, which define the precise bounds of our sphere of control over the external world. The fundamental task of a science of right, as Kant sees it, is to show how these rights to an “external mine” should be defined and guaranteed: “The doctrine of right wants to be sure that what belongs to each has been determined (with mathematical exactitude)” (MM, 6:233). As we shall see, Kant con- cludes that we cannot acquire these sorts of rights without a state. One reason for this is that unlike our titles to freedom of thought and communication or to minimal bodily inviolability, our rights to specific external objects are not naturally determinate. Freedom as independence requires that I have rights of control over a particular body (my own), but not that I have rights of control over a particular object. In order to be free-as-independent, I must have a right to some sphere of property, but it does not matter which specific objects I have a right to.22 Kant’s position can perhaps be made more intuitive if we reflect that any system of prop- erty will require the existence of a set of rules that is complex and to some extent conventional: rules about what sorts of things are eligible to be held as private property, what precisely are the conditions defining voluntary exchange, what constitutes an exploitative agreement, what are the condi- tions of publicly recognized spousal or parental rights, and how to distrib- ute opportunities, education, and income. The conditions specifying these sorts of rights would be imprecise and difficult to judge in a state of nature. The basic thought here is that while a principle of equal freedom pro- vides us some information about what just property distributions should look like, the principle’s content is underspecified, and therefore cannot be directly applied. The equal freedom principle suggests that whatever system of property we implement, it ought to be consistent with every- one’s possession of a zone of freedom that is guaranteed against others’ coercive interference. Nevertheless, many possible systems of property— collective allocation, market socialism, unfettered private ownership— are potentially consistent with that sense of equal freedom. And under each one of these many possible systems, there will again be many possible particular rules consistent with everyone’s freedom—rules about the pre- cise bundle of claims conferred by ownership, about how exchange is to be regulated, about which objects belong to which particular persons. And finally, any system of property will also have to include some aspects that are wholly conventional: rules about what precise formalities are required to conclude a contract, exactly how long a statute of limitations to institute, down, indeed, to what side of the road to drive on.

#### That affirms –

#### [1] In outer space, there is no governing authority and thus claiming property imposes your will over others.

Stilz 2 (Anna Stilz, Anna Stilz is Laurance S. Rockefeller Professor of Politics and the University Center for Human Values. Her research focuses on questions of political membership, authority and political obligation, nationalism and self-determination, rights to land and territory, and collective agency. , 2009, accessed on 12-18-2021, Muse.jhu, "Project MUSE - Liberal Loyalty", https://muse.jhu.edu/book/30179)//phs st

It might seem, then, that Kant, like Simmons, would hold that although our acquired rights are initially indefinite, our private acts of appropria- tion in a state of nature can function to more clearly delimit their contours. Once I appropriate an external object—for example, my piece of land in the state of nature—the boundaries of my right to external freedom might simply be equivalent to those of the things and spaces that I have appropriated. If this were so, then individuals could succeed in more precisely defining property without the help of the state, and simply by coordinating expectations based on their private acts. In order to respect and acknowledge my external freedom, on this view, you would just have to cede me the spot I have rightfully occupied and to refrain from infringing on my choices within that sphere. Yet Kant does not take this position: he argues that the rights made possible by the postulate of practical reason are problematic. Whatever rights our private acts of appropriation outside the state confer upon us can only be understood as provisional rights, that is, they are not conclusive and settled (peremp- torische): indeed, for him, “It is possible to have something external as one’s own only in a rightful condition, giving laws publicly, that is, a civil condition” (MM, 6:255). What is the problem with these private methods of defining our rights to property? Why are they so unsatisfactory, from Kant’s perspective? The essential problem with acquiring property rights in a state of nature, for Kant, seems to be that we cannot unilaterally—through private will— impose a new obligation on other persons to respect our property that they would not otherwise have had.30 “By my unilateral choice I cannot bind another to refrain from using a thing, an obligation he would not otherwise have; hence I can do this only through the united choice of all who possess it in common” (MM, 6:261).31 Even claiming to interpret the a priori general will on another person’s behalf, says Kant, is at- tempting to impose a law on them on my own private authority, since every act of appropriation is “the giving of a law that holds for everyone” (MM, 6:253).32 And he worries that this claim to private authority over others is a potential source of injustice: “Now when someone makes ar- rangements about another, it is always possible for him to do the other wrong; but he can never do wrong in what he decides upon with regard to himself (for volenti non fit inuria)” (MM, 6:314). My will to appro- priate, in the belief that my appropriation is justifiable to others, cannot yet serve as a (coercive) law for everyone else, because it cannot put them under an obligation. Kant suggests, in other words, that figuring out how to carve up shares of the external world consistently with everyone’s freedom does not ex- haust the entire problem of justice involved in acquiring rights to prop- erty. We might appeal to criteria of salience or convention to help coordi- nate our expectations on which of the many possible property distributions to choose. But we face an additional difficulty: how do we impose one of these distributions without at the same time arrogating to ourselves the private authority to lay down the law for an equally free being, one who has an innate right not to be constrained by our private will? In coercing someone to respect our view of our property rights, we are also necessarily claiming the right to impose our private will upon that person. If it is to really respect everyone’s freedom, Kant thinks, a property distribution cannot be unilaterally imposed in this way. This additional dimension of the problem of justly acquiring rights— the problem of unilateral imposition—is rooted in each person’s basic “right to do what seems right and good to him and not to be dependent upon another’s opinion about this” (MM, 6:312). This right to do what seems right and good to him derives from the moral equality of persons: no one has an innate right to decide in another person’s behalf. And be- cause each person is an equally authoritative judge, it is therefore impossi- ble—in a state of nature—to put [them] under an obligation of justice that [they] himself does not recognize. The will of all others except for himself, which proposes to put him under obligation to give up a certain possession, is merely unilateral, and hence has as little lawful force in denying him possession as he has in asserting it (since this can be found only in a general will). (MM, 6:257) In conditions of equal authority—such as those that exist in any state of nature—one is obligated only by what one recognizes, by one’s own lights, as an objectively valid requirement of justice. For that reason, no other person’s merely unilateral will can bind one in the face of one’s own disagreement. Kant concludes from this that “no particular will can be legislative for the commonwealth” (TP, 8:295), since no private person’s will can effec- tively claim to impose an obligation on others. Instead, Kant says that “all right,” that is to say all claims that impose binding duties on others, “depends on laws” (TP, 8:294). Law overcomes the problem of unilater- alism inherent in imposing new obligations on others on one’s own au- thority, by substituting an omnilateral will in place of a unilateral one: “Only the concurring and united will of all, insofar as each decides the same thing for all, and all for each, and so only the general united will of the people, can be legislative” (MM, 6:314). But why is law—imposed from a public perspective—consistent with everyone’s freedom in a way that particular wills—based on our private judgments—are not? Fundamentally, Kant argues that defining and enforcing both our rights over our bodies and our rights to external objects through public and nonarbitrary laws is the only way to secure ourselves against the coercive interference of other private persons in our affairs. For Kant, then, the only sort of property distribution to which we could all hypothetically consent must necessarily be one that is defined and enforced by the state, since all privately enforced distributions have the inevitable side-effect of subjecting us to the wills of others. To show this in more detail, Kant points out two different ways that unilateral private enforcement under- mines our right to independence: first, through unilateral interpretation— a particularly pervasive problem in the enforcement of property rights, since these rights are fully conventional in a way our rights over our bod- ies are not; and second, through unilateral coercion, which threatens in- terference by others in all our rights, both our rights over our bodies and our rights over external things.

#### [2] In the state of nature, everyone is an equal arbitrator of justice – that makes rights violations impossible to resolve.

Stilz 3 (Anna Stilz, Anna Stilz is Laurance S. Rockefeller Professor of Politics and the University Center for Human Values. Her research focuses on questions of political membership, authority and political obligation, nationalism and self-determination, rights to land and territory, and collective agency. , 2009, accessed on 12-18-2021, Muse.jhu, "Project MUSE - Liberal Loyalty", https://muse.jhu.edu/book/30179)//phs st

The Problem of Unilateral Interpretation Kant centrally appeals to the idea that to conclusively possess a right, it must be an objective right, rather than a subjective right based on one individual’s private interpretation of what justice requires. A subjective right is an individual’s good-faith belief about his rights: this belief gives him title to coerce others to keep off his property or to allow him bodily inviolability. But it does not yet place other people under a correlative duty. That would be so only if all individuals shared [their] interpretation of justice. But since individuals are equally authoritative judges in the state of nature, whenever they do not share another person’s belief about jus- tice, his belief imposes no duty on them at all. Instead, they are obliged only by the duties imposed by their own good-faith interpretation of jus- tice, which may not be concordant with his. It might be said, by someone of a more Lockean persuasion, that one of these competing interpreta- tions is the one that simply is valid as a matter of moral fact. That may be so. But as long as we remain in a state of nature, even this true view of right must remain unrealized, since each person, being an equally au- thoritative judge, has a right to enforce [their] own interpretation of justice, which means the true view of right places the person under no duties when it does not correspond with the person’s own. So as long as we remain our own judges and self-enforcers, there is no means by which we might establish which interpretation of right is morally valid without claiming the authority to serve as judge in another person’s behalf and forcibly subject the person to our will. And to claim that authority over someone else, Kant thinks, is refuse to recognize a person’s independence as an equally free being. For this reason, Kant thinks a procedure for the determination of objec- tive rights is a constitutive feature of justice, since a common process of adjudication is logically necessary if anyone’s rights are to impose any objective duties on other people.33 Objective rights are rights that are de- termined through such a process of adjudication, and that impose recog- nizable duties on us even when we disagree about what justice requires. If each person is threatened with violence every time another person’s private interpretation of justice disagrees with her own, [they] cannot possi- bly enjoy a secure sphere of freedom, since this other person is able to interfere with it whenever he sees fit. Instead, it is a constitutive part of justice that there be one univocal interpretation of the rights and duties to which everyone is subject, because only then can people securely enjoy independence from each other. Part of what justice demands, then, is a mechanism by which people can have their rights guaranteed in the exter- nal world without depending on the concordance of other people’s beliefs. Justice cannot be attained in the absence of such a procedure: only once it is in place are we fully independent of interference by other people, as we have an innate claim to be. To see how the unilateralism of interpretation undermines indepen- dence, imagine for a moment that you and I are state-of-nature neighbors. Say we have managed to resolve the indeterminacy of our property rights somewhat, perhaps by appropriating only in accordance with our inter- pretation of Kant’s a priori general will, or by coordinating our expecta- tions based on the most salient just system. So we have hit on some right- ful boundary that sets off your property from mine, such that if I desire to live side by side with you in peace, simply by respecting your basic rights, I ought to be able to do so. Let’s call our initial “property-owning” equilibrium E1. Now suppose some dispute arises between us over whether your prop- erty right has in fact been infringed. Perhaps I have built a huge garage in my area, which blocks the sunlight to your property and makes your gar- den unusable. Any number of examples are possible; what unites them all is that they represent new contingencies, the disposition of which is going to be indefinite enough according to whatever original criterion of appro- priation we are working with to make it likely parties acting in good faith might disagree. In our state-of-nature system, however, the interpretation of what right actually requires in this contingency is left up to you, along with the choice of whether or not to exercise your coercive rights to re- dress any (perceived) violation. So let’s say that you decide my garage is a violation of your acquired rights, since it makes your entire garden unusable, and so you cross our boundary in order to prevent me from blocking the light and to exact compensation from me. If I do not agree with your interpretation of your rights, I am under no obligation to submit to you: I am an equally authori- tative interpreter of justice. I may object to the rightfulness of your bound- ary-crossing in this case, or, even if I concede that you had a right to exact punishment, I may (in all good faith) think that you have exceeded the bounds of the compensation you are entitled to. So I may struggle against you, and regard myself as doing so rightfully. In this situation we both regard ourselves as having a claim of justice, and since we both act in good faith, we act with full subjective right. But in our state of nature, the only thing that can decide the matter between us is a contest of strength, since both sides are equally right from their point of view. As Jeremy Waldron puts it: there is an affront to the idea of justice when force is used by opposing sides, confrontationally and contradictorily, in justice’s name. The point of using force in the name of justice is to assure people of that to which they are entitled. But if force is being used to further contradic- tory ends, then its connection with assurance is ruptured.3 Let’s say that in this case you are the stronger, and that you succeed in demolishing my garage and in exacting what you regard as rightful com- pensation for my supposed infringement—say, one-quarter of my prop- erty. Now we have a new property-owning equilibrium, E2, in which you possess 125 percent of our combined share and I possess only 75 percent. And keeping with our initial assumption that both parties were acting in good faith, with full subjective right, this new equilibrium would not have come about unrightfully. Yet there is a real sense in which I retain a claim here, since the only reason you now possess more of the total is that you were stronger, not that I was convinced by your interpretation of justice. But the bounds of our sphere of control in the external world ought not to depend on the contingencies of who is stronger, and our innate independence ought not to be subject to continual interference by others who may coerce us at any moment in accordance with their private views. For this reason, Kant thinks it is a constitutive feature of justice that it be administered by an authoritative legal system, which can impose one set of objective rules about what constitutes an infringement of property—rules we must re- spect even when we disagree about what justice requires—and adjudicate our conflicting claims in a way that is consistent with our continued inde- pendence from each other. The idea is that if we want to possess claims that, as objective rights, are actually respected by others in the external world, we will need to recognize one and only one common set of rules about rights, not a variety of competing private interpretations that coer- cively struggle for the upper hand.

## Underview

#### 1AR theory – a) AFF gets it because otherwise the neg can engage in infinite abuse, making debate impossible, b) drop the debater – the 1AR is too short for theory and substance so ballot implications are key to check abuse, c) no RVIs – they can stick me with 6min of answers to a short arg and make the 2AR impossible, d) competing interps – 1AR interps aren’t bidirectional and the neg should have to defend their norm since they have more time. e) Fairness because debate’s a game that needs rules to evaluate it and education since it gives us portable skills for life like research and thinking.

# 1ar

#### Solar power station risks miscalc – shifts in solar panels misfire microwave beaming guns.

Chen, 21 (Stephen Chen, Stephen Chen investigates major research projects in China, a new power house of scientific and technological innovation. He has worked for the Post since 2006. He is an alumnus of Shantou University, the Hong Kong University of Science and Technology, and the Semester at Sea programme which he attended with a full scholarship from the Seawise Foundation., 8-17-2021, accessed on 1-28-2022, South China Morning Post, "China aims to use space-based solar energy station to harvest sun’s rays to help meet power needs", https://www.scmp.com/news/china/science/article/3145237/china-aims-use-space-based-solar-energy-station-harvest-suns)//phs st

An intensive energy beam would need to penetrate the cloud efficiently and hit a ground station directly and precisely. Researchers at the Bishan facility will work on these and other projects. A solar energy plant is not efficient because it only operates during the day, and the atmosphere reflects or absorbs nearly half the energy in the sunlight. Since the 1960s, some space scientists and engineers have been attracted to the idea of a solar station in space. From an altitude of 36,000km (22,400 miles) or above, a geo-stationary solar plant can avoid the Earth’s shadow and see the sun 24 hours a day. The energy loss in the atmosphere could also be reduced to the minimum (about 2 per cent) by sending the energy in the form of high-frequency microwaves. Over the last few decades, various forms of solar power stations have been proposed from around the world but they remained theoretical because of major technical challenges. At Bishan, Chinese researchers would first need to prove that wireless power transfer worked over a long distance. Although the engineer and inventor Nikola Tesla popularised the idea in the late 19th century, the technology has been limited to only a small number of short-range applications, such as the wireless charger for smartphones. Tesla failed in part because he made the electricity travel in the air like waves in all directions. To increase the effective range, the energy must be concentrated into a highly focused beam. The Chinese researchers received wireless energy emitted from a balloon 300 metres (980 feet) above the ground. When the Bishan facility is complete, they plan to increase the range to more than 20km with an airship collecting solar energy from the stratosphere, according to the China Science Daily. In Bishan, researchers will also experiment with some alternative applications of the technology, such as using the energy beam to power drones. The core experimental zone will be 2 hectares (4.9 acres) and surrounded by a clearance zone five times larger. Local residents are not allowed to enter the buffer zone for their own safety, according to the district government. The safety risk of a space solar plant is not negligible, according to some recent studies in China. When the huge solar panels turn to chase the sun, for instance, they could produce small but persistent vibrations in the microwave beaming gun that could cause a misfire. The “space farm” would therefore need an extremely sophisticated flight control system to maintain its aim at a tiny spot on Earth. Another hazard would be radiation. According to one calculation by a research team with Beijing Jiaotong University last year, residents could not live within a 5km range of the ground receiving station for the 1GW Chinese solar plant in space. Even a train more than 10km away could experience problems such as sudden loss of communication because the frequency of the energised microwave would affect Wi-Fi.

#### High Power Microwave weapons destroy satellites. No “not a weapon”– HPM tech is dual use which makes its deployment unpredictable and impossible to enforce.

Larson 1/10 (Caleb Larson, Caleb Larson, a defense journalist based in Europe and holds a Master of Public Policy degree from the Willy Brandt School of Public Policy. He lives in Berlin and writes on U.S. and Russian foreign and defense policy, German politics and culture., 1-10-2022, accessed on 1-28-2022, 19FortyFive, "The US Navy Has Big Plans for High-Power Microwave Weapons", https://www.19fortyfive.com/2022/01/the-us-navy-has-big-plans-for-high-power-microwave-weapons/)//phs st

The U.S. Navy has announced the first test of its on-orbit power-beaming system on the U.S. Air Force's X-37B mini-space shuttle, just a day after the successful launch of that vehicle on its latest mission to space. These experiments could have game-changing implications for power generation on Earth, especially for facilities in remote areas and for unmanned aircraft, but they also underscore the potential applications of high-powered microwaves and other directed energy beams as weapons in space to jam, blind, or even destroy critical sensors and other components on opponents' satellites. The U.S. Naval Research Laboratory's (NRL) Photovoltaic Radio-frequency Antenna Module (PRAM) is one of a number of publicly disclosed payloads onboard the X-37B, which blasted off from Cape Canaveral Air Force Station in Florida on top of a United Launch Alliance Atlas V rocket on May 17, 2020. This is the reusable space plane's sixth trip into orbit since 2010 and it had just completed its fifth mission, which lasted a record-setting 780 days, in October 2019. Much about the craft and its missions remain highly classified. PRAM is a self-contained module that is a foot long, a foot wide, and around two inches tall. The system uses a solar panel on top to collect sunlight and then converts that into a microwave beam. In principle, a receiver on Earth could then take the beam and convert it back into energy that could be used to power traditional electric devices. You can read more about the history of this concept and the science behind it in this past War Zone piece. "PRAM converts sunlight for microwave power transmission. We could’ve also converted for optical power transmission," Chris Depuma, the PRAM program manager at NRL, said in a statement. "Converting to optical might make more sense for lunar applications because there’s no atmosphere on the Moon. The disadvantage of optical is you could lose a lot of energy through clouds and atmosphere." The Navy team plans to test how efficiently PRAM converts energy and its associated thermal performance in space, rather than in a terrestrial laboratory setting. NRL hopes these experiments will inform the development of future prototypes and could lead to a full system installed on a dedicated spacecraft. In principle, a constellation of solar-energy-collecting power-beaming satellites could provide near-limitless, clean power anywhere on Earth. This could completely transform how power is supplied for both military and civilian activities in the most remote areas. It could potentially power propulsion systems on long-endurance drones, allowing them to stay aloft indefinitely, something The War Zone has previously explored in detail. "To our knowledge, this experiment is the first test in orbit of hardware designed specifically for solar power satellites," Paul Jaffe, PRAM principal investigator at NRL, said in his own statement. This "could play a revolutionary role in our energy future." However, if a power-beaming system can take solar energy, convert it into a microwave beam, and direct that beam at a specific location, one has to wonder if that concept could not also be adapted into a space-based weapon. The idea of using high-powered microwaves to disrupt, or even destroy, electronic systems in space, as well as on Earth, is hardly new. The U.S. military alone has already explored various types of high-powered microwave weapons that can scramble or damage electronic systems and is evaluating new designs, right now. These include systems that can disrupt enemy computer networks, knock down small drones, and fry the electronics in incoming missiles to throw them off course, among others. A sufficiently powerful burst of microwave energy could cause enough damage to cause a mission kill on satellites. A 2019 report from the U.S. Defense Intelligence Agency (DIA) specifically highlighted ground and space-based high-powered microwaves, as well as other directed energy weapons, including lasers, as potential future threats to American assets in orbit. It also listed a slew of other possible dangers, including jamming and "killer satellites" capable of launching various types of kinetic and non-kinetic attacks. The Russians and the Chinese both already have various anti-satellite capabilities, including air-launched and ground-based kinetic interceptors, and are continuing to develop new capabilities given the traditional advantage that the United States has in space-based capabilities, including intelligence gathering, early warning, communications and data sharing, navigation, and more. The U.S. military itself has a number of other highly-classified counter-space capabilities and other countries, such as India, are also developing their own means to challenge opponents assets' in orbit. There is also renewed discussion about space-based weapons, mostly as a means to counter anti-satellite threats or for missile defense, in recent years. "Directed energy weapons (high energy lasers or particle beam) or space-based interceptors provide the best overall hope of a hard kill" to destroy future hypersonic weapons, according to a report the NATO Science & Technology Organization released in March. In 2019, France also notably announced plans to eventually deploy small laser-armed satellites to protect other space-based assets. As NRL's researchers noted with regards to PRAM, the vacuum of space removes many of the obstacles that deflect and diffuse directed energy beams on Earth. This means it could require less starting power to generate a beam with sufficient energy to disrupt or damage another target in space, even if it were shielded from common solar radiation. Many military-grade weapons and other systems are also hardened against electromagnetic radiation, but are still vulnerable to a suitably powerful microwave attack. Highly maneuverable satellites or other spacecraft – the X-37B would be an ideal platform itself – could also maneuver the system very close to its target. This could, in turn, reduce the power and range requirements for high-powered microwave or other directed energy weapons. A high-powered microwave also has the benefit of not needing to physically break up the target to destroy it, meaning that an attack would not cause a cloud of dangerous space debris that could threaten friendly assets in space.

#### Miscalc – downed satellites causes miscalc and goes nuclear.

Blatt 20 [Talia, joint concentration in Social Studies and Integrative Biology at Harvard, specialization in East Asian geopolitics and security issues] “Anti-Satellite Weapons and the Emerging Space Arms Race,” Harvard International Review, May 26, 2020, <https://hir.harvard.edu/anti-satellite-weapons-and-the-emerging-space-arms-race/> TG //rct phs st

Despite their deterrent functions, ASATs are more likely to provoke or exacerbate conflicts than dampen them, especially given the risk they [pose](https://thebulletin.org/2019/06/arms-control-in-outer-space-the-russian-angle-and-a-possible-way-forward/) to early warning satellites. These satellites are a crucial element of US ballistic missile defense, capable of [detecting missiles](https://www.globalsecurity.org/space/world/japan/warning.htm) immediately after launch and tracking their paths. Suppose a US early warning satellite goes dark, or is shut down. Going dark could signal a glitch, but in a world in which other countries have ASATs, it could also signal the beginning of an attack. Without early warning satellites, the United States is much more susceptible to nuclear missiles. Given the strategy of counterforcing—[targeting](https://www.belfercenter.org/sites/default/files/files/publication/isec_a_00273_LieberPress.pdf) nuclear silos rather than populous cities to prevent a nuclear counterattack—the Americans might believe their nuclear weapons are imminently at risk. It could be [twelve hours](https://books.google.com/books?id=ET8lDwAAQBAJ&pg=PA1&lpg=PA1&dq=%22Protecting+Space+Assets%22+johnson-freese&source=bl&ots=6Oq0IdeBjw&sig=ACfU3U1G6Hj8QdP4JlCRNxA6i5XplZwHyg&hl=en&sa=X&ved=2ahUKEwj1n-jT2YzpAhUugnIEHUuMCu4Q6AEwA3oECAkQAQ#v=onepage&q=%22Protecting%20Space%20Assets%22%20johnson-freese&f=false) before the United States regains satellite function, which is too long to wait to put together a nuclear counterattack. The United States, therefore, might move to mobilize a nuclear attack against Russia or China over what might just be a piece of debris shutting off a satellite. Additionally, accidental warfare, or strategic miscalculation, is uniquely likely in space. It is [much easier](https://books.google.com/books?id=VyXTDwAAQBAJ&pg=PA339&lpg=PA339&dq=space+offense+dominant&source=bl&ots=Mw0bgJ51qf&sig=ACfU3U3DeZiEHpr9nfszlCbJZIoyyssIpg&hl=en&sa=X&ved=2ahUKEwjrs-WD3IzpAhVulHIEHbL0AE4Q6AEwCXoECAoQAQ#v=onepage&q=space%20offense%20dominant&f=false) to hold an adversary’s space systems in jeopardy with destructive ASATs than it is to [sustainably defend](https://www.cnas.org/publications/commentary/the-us-military-should-not-be-doubling-down-on-space) a system, which is expensive and in some cases not technologically feasible because of limitations on satellite movement. Space is therefore [considered](https://books.google.com/books?id=VyXTDwAAQBAJ&pg=PA339&lpg=PA339&dq=space+offense+dominant&source=bl&ots=Mw0bgJ51qf&sig=ACfU3U3DeZiEHpr9nfszlCbJZIoyyssIpg&hl=en&sa=X&ved=2ahUKEwjrs-WD3IzpAhVulHIEHbL0AE4Q6AEwCXoECAoQAQ#v=onepage&q=space%20offense%20dominant&f=false) offense-dominant; offensive tactics like weapons development are prioritized over defensive measures, such as [improving GPS](https://www.politico.com/story/2018/04/06/outer-space-war-defense-russia-china-463067) or making satellites more resistant to jamming. As a result, countries are left with poorly defended space systems and rely on offensive posturing, which increases the risk that their actions are perceived as aggressive and incentivizes rapid, risky counterattacks because militaries cannot rely on their spaced-based systems after first strikes. There are several hotspots in which ASATs and offensive-dominant systems are particularly relevant. Early warning satellites [play](https://www.politico.com/story/2018/04/06/outer-space-war-defense-russia-china-463067) a central role in US readiness in the event of a conflict involving North Korea. News of North Korean missile launches comes from these satellites. Given North Korea’s [history](https://www.bbc.com/news/world-asia-pacific-11813699) of nuclear provocations, unflinchingly hostile rhetoric towards the United States and South Korea, and diplomatic opacity, North Korea is always a threatening, unknowable adversary, but recent developments have magnified the risk. With the health of Kim Jong-un [potentially in jeopardy](https://apnews.com/f5d302ae65b03838173e40848223b771), a succession battle or even civil war on the peninsula [raises the chances](https://www.express.co.uk/news/world/1273890/Kim-Jong-un-dead-North-Korea-nuclear-weapon-news-latest-death-US) of loose nukes. If the regime is terminal, traditional MAD risk calculus will become moot; with nothing to lose, North Korea would have no reason to hold back its nuclear arsenal. Or China [might decide](https://foreignpolicy.com/2020/04/28/kim-jong-un-china-north-korea/) to seize military assets and infrastructure of the regime. If the US does not have its early warning satellites because they have been taken out in an ASAT attack, the US, South Korea, and Japan are all in imminent nuclear peril, while China could be in a position to fundamentally reshape East Asian geopolitics. The South China Sea is another hotspot in which ASATs could risk escalation. China [is developing](https://missiledefenseadvocacy.org/missile-threat-and-proliferation/todays-missile-threat/china-anti-access-area-denial-coming-soon/) Anti-Access Area Denial (A2/AD) in the South China Sea, a combination of long range radar with air and maritime defense meant to deny US freedom of navigation in the region. Given the disputed nature of territory in the South China Sea, the United States and its allies do not want China to successfully close off the region.

#### Nuke war causes extinction – Ice Age, famines, and war won’t stay limited

Edwards 17 [Paul N. Edwards, CISAC’s William J. Perry Fellow in International Security at Stanford’s Freeman Spogli Institute for International Studies. Being interviewed by EarthSky. How nuclear war would affect Earth’s climate. September 8, 2017. earthsky.org/human-world/how-nuclear-war-would-affect-earths-climate] Note, we are only reading parts of the interview that are directly from Paul Edwards – MMG //rct phs st

In the nuclear conversation, what are we not talking about that we should be?

We are not talking enough about the climatic effects of nuclear war. The “nuclear winter” theory of the mid-1980s played a significant role in the arms reductions of that period. But with the collapse of the Soviet Union and the reduction of U.S. and Russian nuclear arsenals, this aspect of nuclear war has faded from view. That’s not good. In the mid-2000s, climate scientists such as Alan Robock (Rutgers) took another look at nuclear winter theory. This time around, they used much-improved and much more detailed climate models than those available 20 years earlier. They also tested the potential effects of smaller nuclear exchanges. The result: an exchange involving just 50 nuclear weapons — the kind of thing we might see in an India-Pakistan war, for example — could loft 5 billion kilograms of smoke, soot and dust high into the stratosphere. That’s enough to cool the entire planet by about 2 degrees Fahrenheit (1.25 degrees Celsius) — about where we were during the Little Ice Age of the 17th century. Growing seasons could be shortened enough to create really significant food shortages. So the climatic effects of even a relatively small nuclear war would be planet-wide. What about a larger-scale conflict? A U.S.-Russia war currently seems unlikely, but if it were to occur, hundreds or even thousands of nuclear weapons might be launched. The climatic consequences would be catastrophic: global average temperatures would drop as much as 12 degrees Fahrenheit (7 degrees Celsius) for up to several years — temperatures last seen during the great ice ages. Meanwhile, smoke and dust circulating in the stratosphere would darken the atmosphere enough to inhibit photosynthesis, causing disastrous crop failures, widespread famine and massive ecological disruption. The effect would be similar to that of the giant meteor believed to be responsible for the extinction of the dinosaurs. This time, we would be the dinosaurs. Many people are concerned about North Korea’s advancing missile capabilities. Is nuclear war likely in your opinion? At this writing, I think we are closer to a nuclear war than we have been since the early 1960s. In the North Korea case, both Kim Jong-un and President Trump are bullies inclined to escalate confrontations. President Trump lacks impulse control, and there are precious few checks on his ability to initiate a nuclear strike. We have to hope that our generals, both inside and outside the White House, can rein him in. North Korea would most certainly “lose” a nuclear war with the United States. But many millions would die, including hundreds of thousands of Americans currently living in South Korea and Japan (probable North Korean targets). Such vast damage would be wrought in Korea, Japan and Pacific island territories (such as Guam) that any “victory” wouldn’t deserve the name. Not only would that region be left with horrible suffering amongst the survivors; it would also immediately face famine and rampant disease. Radioactive fallout from such a war would spread around the world, including to the U.S. It has been more than 70 years since the last time a nuclear bomb was used in warfare. What would be the effects on the environment and on human health today? To my knowledge, most of the changes in nuclear weapons technology since the 1950s have focused on making them smaller and lighter, and making delivery systems more accurate, rather than on changing their effects on the environment or on human health. So-called “battlefield” weapons with lower explosive yields are part of some arsenals now — but it’s quite unlikely that any exchange between two nuclear powers would stay limited to these smaller, less destructive bombs.