

Working paper 2025:1

The Time of Perils and a World System of Governance

by Karim Jebari and Julia Adler

Abstract

Extinction risk refers to the possibility of the extinction of the human species, and is the subject of a growing field of study. In this context, the time of perils hypothesis has had a prominent role. The time of perils hypothesis implies that human civilization finds itself in an era of elevated extinction risk, and that if it survives this era, extinction risk will be permanently and substantially reduced. This hypothesis is of considerable importance to the view that preventing extinction risks in the near future has an astronomical value in expectation. This view is motivated by the possibility of the existence of a vast number of happy individuals in the long-term future, and by the view that these possible future people matter. If the time of perils hypothesis is wrong, and extinction risk remains high for the foreseeable future, then human civilization is unlikely to be very long-lived, regardless of our actions.

We present here an argument in favor of the time of perils hypothesis. We argue that, according to several prominent theories in the field of international relations (IR), humanity (absent an extinction event) is likely to be unified under a world system of governance. By a “world system of governance” (WSG), we mean a global set of institutions, norms and structures that can settle disputes, promote trust and cooperation, and reduce great power security competition. We explore the most prominent theories in international relations, which include: realism, liberalism and constructivism, and how these theories propose the emergence of a global system of governance. We conclude that a WSG will, if it emerges, have a significant impact on reducing extinction risk, including risks from emerging technologies, biorisk and non-anthropogenic risks. This argument, linking IR theory to existential risk is, to our knowledge, novel and potentially significant in the context of ascertaining whether existential risk prevention has astronomical value in expectation due to the vast number of potential lives that could exist in the future.

1. Introduction

The study of existential risk is a growing academic field of study. Existential risks have been defined as risks that dramatically and irreversibly reduce the potential of humanity to produce value, for example irreversible social collapse, or the permanent enslavement of humanity to malicious artificial intelligence (AI). A subset of existential risks is *extinction risk*, or the risk of humanity going extinct. Extinction risks will be the focus of this article. These include risks from the deployment of weapons of mass destruction (such as nuclear weapons and bioweapons), pandemics, climate change, and unaligned AI. Among researchers and scholars that have explored extinction risk, the view that the current time is a “time of perils” is quite common, but seldom explicitly argued for:¹

The time of perils hypothesis

Per time-unit extinction risk is much higher now than it has been historically, and will remain so for a few centuries. Extinction risk will thereafter permanently decline to very low levels.

There are two important components of this hypothesis:

The elevated risk claim: Extinction risk is now higher than it has been in the history of humanity.

The future reduction of risk claim: Extinction risk will be drastically and permanently reduced if humanity/human civilization persists for a certain period of time (a few centuries).

The first part is rarely disputed, although there is some disagreement on when the time of perils began. However, the second component is more controversial, and will be the focus of this investigation. In a recent article, David Thorstad argues that despite (2) being a quite extraordinary claim, hardly anything has been written to defend it. Rather, proponents of the Times of Perils Hypothesis merely suggest that existential risk will decline due to some underspecified mechanism, such as “increased wisdom” (Thorstad 2023).

This is unfortunate, since the claim that extinction risk will be permanently and drastically reduced over the next few centuries has important consequences for the expected value of actions that aim at reducing extinction risk in the present and near future. If this claim is true, then humanity can, if it successfully navigates the risks in the next few centuries, expect to have an immense and possibly very valuable future for a very, very long time (Bostrom 2003; MacAskill 2022; Ord 2020). For example, Nick Bostrom suggests that “...the Virgo Supercluster could contain 10^{23} biological humans” (2003, 309). Consequently, if extinction risk will be low in the future, then this increases the importance of reducing existential risk now, perhaps even at great cost for currently existing generations.

By contrast, if *the future reduction of risk claim* is false, and extinction risk remains high for the foreseeable future, then we should expect humanity to go extinct relatively soon, regardless of our actions. To illustrate, Ord believes that there is a $\frac{1}{6}$ (or about

¹ Not all proponents use the phrase “time of perils”, but the content of their arguments is very similar. See, for instance, Nick Bostrom (2003; 2013), Toby Ord (2020), Carl Sagan (1994), Derek Parfit (2011), Nick Beckstead (2013), Robin Hanson (1998).

17%) probability of human extinction or irreversible social collapse this century (2020, 167). If this risk remains constant over time, then the extinction risk over the next 1000 years will reach 84%. If the life expectancy of humanity is less than 1000 years, then the number of people that are likely to exist in the future is relatively small, compared to the number of people that could be expected to exist if (2) is true. If extinction risk will remain high in the long-term future, the value of preventing an extinction catastrophe today would still be considerable. But the value would not be *astronomical*, as it could be if (2) was true.

Thus, it is very important to determine whether (2) is true. We will here present an argument in favor of (2) that has not been explored at length to this date. This argument draws on theories that are prominent in the International Relations (IR) field of study, according to which it is likely that a WSG will end the current era of anarchy in the international system.² We will argue that such a WSG would make a significant reduction to extinction risk over the long term future. This is an argument in favor of the time of perils hypothesis.

The remainder of this article will proceed as follows. First, we will define what a WSG is and present an argument for why it would significantly reduce extinction risk. Second, we will review arguments from the IR literature regarding why we should expect a WSG to emerge over the course of one or two centuries. Third, we will consider some objections against the claim that a WSG will emerge. The fifth section concludes.

2. A world system of governance and extinction risk

A world system of governance is a hypothetical set of global political institutions that would have the following effects:

1. Significantly reduce the risk of inter-state armed conflict.
2. Establish authority that is perceived as legitimate for resolving conflicts between its subsumed political entities (Lu 2021).
3. Greatly facilitate international cooperation and coordination.

In the international relations literature, WSGs have been imagined in numerous ways (Lu 2021). These range from a voluntary union of sovereign states, interconnected through institutional frameworks for trade, legal harmonization, conflict resolution, political and social integration, etc., (e.g., Young 2002; Deudney 1995; 2019), to a centralized world state with political control over all nations and monopoly on the use of force (e.g., Dufek 2013; Cabrera 2004; Wendt 2003). There are significant differences between these visions of WSGs. However, they are quite similar from the perspective of reducing extinction risk. We argue that a WSG, as described by international relations scholars, would reduce extinction risks in three ways:

2.1 Reduces the risk of war between great powers

When great powers go to war, as they did during World War II, they often bring destruction on a massive scale. Modern great powers have weapons of mass destruction,

² Anarchy in the context of IR theory does not imply chaos or disorder, but the idea that there is no supreme authority that can use coercive powers to resolve disputes or enforce law.

including thermonuclear bombs, bioweapons and chemical weapons. In the future, other even more destructive weapons could be invented. A great power war is considered to be a significant extinction risk due to the sheer destruction that is made possible with modern weapons. By reducing the risk of wars between great powers, a WSG would reduce the risk that weapons of mass destruction are deployed on a massive scale. This is important, since only a large deployment of such weapons poses an extinction risk. For example, for a nuclear winter to happen, a large fraction of the existing nuclear weapons have. Only wars between great powers are likely to cause such exchanges. Mere terrorist attacks, insurgencies and small-scale conflicts are not likely to cause destruction on a scale that would pose an extinction risk. Not even a nuclear exchange between medium-sized but nuclear armed powers, such as between India and Pakistan with their presently existing arsenals, is likely to trigger an extinction-level nuclear winter (Hess 2021; Reisner et al. 2018). Other risks that would be reduced by this mechanism include the spread of pathogens in the wake of destructive wars, as happened with the 1918–1920 flu pandemic at the end of the First World War.

2.2 Reduces security competition between great powers

Security competition between great powers happens when at least two powerful states that are roughly equal in economic and military power engage in various forms of geopolitical struggle. This includes forming alliances, engaging in proxy conflicts, spreading negative propaganda, conducting or supporting military coups in countries aligned with their adversary, financing insurgent and oppositional groups, enforcing economic or technological embargos, and so on. The Cold War between the US and the USSR, and The Great Game between Russia and the British Empire are two examples of security competition between great powers. When great powers feel threatened, they take actions that create significant extinction risk, even in the absence of a conventional war between the two (Hoffman 2015; Scheidel 2019). Great powers have historically developed dangerous weapons, often without proper security measures, as they are focused on outcompeting their opponents in arms races. For example, the USSR had a very large bioweapons program that could produce up to 90 tons of weaponized smallpox (Leitenberg, Zilinskas, and Kuhn 2012). This program was not always run with safety in mind, as evidenced by the accidental release of anthrax-spores in 1979 (Meselson et al. 1994). Likewise, the US nuclear development program was also characterized by recklessness, as described in the book *Command and Control* (Schlosser 2014). The relentless drive for advancing technology, especially technology that has military applications, and the reduced concern for safety in the testing and deployment of such technology is of great concern for Ord (2020), Olle Häggström (2016) and other thinkers that believe that AI poses the single largest extinction risk. A WSG that eliminates security competition between great powers, would significantly reduce the technological risk that such competition entails, including in the domain of AI, but also in other dangerous dual-use technologies.

2.3 Increases the prospect of global cooperation

Some global risks are aggravated by the lack of global coordination, governance problems and a lack of trust in the international community. For example, the COVID-19 pandemic was aggravated by the lack of global coordination on how to act, resulting

in the hoarding of personal protective equipment and COVID-19 tests, counter-productive border closures, and lack of transparency with important data. Vaccines were not as widely distributed as they could have been, and some countries actively spread disinformation to tarnish the effectiveness of “foreign” vaccines (Bing and Schectman 2024). Such failures of coordination would be very dire in a hypothetical pandemic that poses an extinction risk. A WSG would solve many of the coordination and cooperation problems that are currently increasing extinction risk.

2.3.1 Facilitates solving collective action problems

First, a WSG would also include effective political institutions that could address various “free-rider” dilemmas and similar collective action problems. Currently, some countries are unwilling to invest significant resources in reducing their greenhouse gas emissions, since their behavior alone cannot impact the outcome. A WSG could dissolve such dilemmas by imposing taxes or sanctions on countries that do not cooperate, and compensate countries that make the adequate investments.

2.3.2 Increases trust

Second, a WSG would reduce extinction risks caused by the lack of trust between nations. Such lack of trust could hamper global efforts at coordinating necessary but risky global projects such as atmospheric geoengineering or asteroid deflection systems (Sagan and Ostro 1994). For example Carl Sagan argued that in the absence of global institutions that can foster trust and cooperation, an asteroid deflection system would increase rather than decrease extinction risk (Sagan and Ostro 1994).

2.3.3 Reduced military spending

Third, by reducing the need for military spending, it would free up resources to prevent non-military risks. Global military spending amounted to 2,4 trillion USD in 2023 (SIPRI 2024). While there is no guarantee that these resources would instead be used for risk reduction, it is worth noting that redirecting a fraction of that amount to investment in for example fossil-free energy would make a significant change in the rate of decarbonization.

We argue that these mechanisms would reduce the risk of extinction. This reduction may come to be because the event that causes the extinction risk is less likely to occur, or because such an event would be less likely to lead to extinction, should it occur. How much risk reduction a WSG would result in is difficult to predict. But it is worth noting that most extinction risks that have been suggested in the literature are likely to be reduced, including most technological risks, risks from natural hazards, risk from weapons of mass destruction and biorisks. Thus, while a WSG may not reduce extinction risk to zero, it is very likely to reduce this risk such that human civilization may have ample opportunity to pursue other risk-reduction strategies.

| Risk | Cause of Risk | Risk reduction from WSG |
|------------------------------|--|--|
| Nuclear War → Nuclear Winter | <ul style="list-style-type: none"> * Great power war → Nuclear war * Great power security competition → Nuclear arms race | <ul style="list-style-type: none"> * Reduces the risk of war between great powers (2.1) * Reduces security competition between great powers (2.2) |
| Severe Global Warming | <ul style="list-style-type: none"> * Collective action problem + Lack of trust → Inaction * Lack of resources → Inaction | <ul style="list-style-type: none"> * Reduces military spending (2.3.1) * Facilitates solving collective action problems (2.3.2) * Increases trust (2.3.3) |
| AI risk | <ul style="list-style-type: none"> * Great power security competition → AI arms race * Collective action problems + Lack of trust → insufficient global regulation | <ul style="list-style-type: none"> * Reduces security competition between great powers (2.2) * Facilitates solving collective action problems (2.3.2) * Increases trust (2.3.3) |
| Bioweapons | <ul style="list-style-type: none"> * Great power war → Use of bioweapons * Great power security competition → Bioweapon arms race * Collective action problems + Lack of trust → insufficient global regulation | <ul style="list-style-type: none"> * Reduces the risk of war between great powers (2.1) * Reduces security competition between great powers (2.2) * Facilitates solving collective action problems (2.3.2) * Increases trust (2.3.3) |
| Asteroid/ supervolcano risk | <ul style="list-style-type: none"> * Collective action problems → ineffective response * Lack of trust → measures increase risk | <ul style="list-style-type: none"> * Facilitates solving collective action problems (2.3.2) * Increases trust (2.3.3) |
| Pandemic risk | <ul style="list-style-type: none"> * Great power security competition → local conflicts → disease spread * Lack of trust → desinformation * Collective action problems → vaccine hoarding | <ul style="list-style-type: none"> * Reduces security competition between great powers (2.2) * Facilitates solving collective action problems (2.3.2) * Increases trust (2.3.3) |

3. The (inevitable?) emergence of a world system of governance

The eventual emergence of a WSG is predicted by several theories in international relations. Here, we will review three of the most prominent ones: realism, liberalism and constructivism. According to realism, the anarchic structure of the international system shapes the behavior of states, making them prioritize security and survival. Constructivism claims that state behavior is rather shaped by socially constructed ideas, such as “honor” or “recognition”. Finally, liberalism is the view that national (e.g., democratic government) and international institutions (trade, international organizations etc) are more significant in predicting how states behave.

3.1 Realism: Great power competition and technology

While early realists rejected the idea of a world state, the deployment of nuclear weapons at the end of World War II prompted some theorists within the realist tradition to embrace the idea of a world state as a probable or even desirable outcome. For example, James Burnham (1947) argued that the invention of nuclear weapons would undoubtedly lead to either the destruction of civilization or a world empire with an absolute monopoly on the control of nuclear weapons. These realists, known as “nuclear one-worlders”, saw the immensely destructive power of thermonuclear weapons as a fundamental challenge to the anarchical nature of the international arena (Baji 2021; Deudney 1995). With nuclear weapons came the power to completely destroy other states, which fundamentally changed the structure of the international arena. As nuclear weapons grant even small states the ability to “kill” larger states, nuclear one-worldism holds that these weapons increase the expected utility for states to surrender to a global common power; a world state (Deudney 2019; 1995).

However, realist scholar Daniel Deudney (2019; 1995) argues that a world state that seeks to centralize violence capabilities globally does not constitute the most viable mode of protection in a nuclear era. According to Deudney, security in a world with weapons of mass destruction is achieved through the *demobilization*, *separation*, and *deceleration* of the means of destruction (most prominently, nuclear weapons). The most viable mode of protection is a form of global republican-federal institution (a WSG) that seeks to constrain the destructive power of states by dispersing and constraining decision-making power over the means of destruction, without consolidating the world into a single world state. This new institution would end the international state of anarchy by creating a regime “of such importance that all states, even the most capable, depend on it for their continued security, making such an arrangement a *complementary regime*” (Deudney 2019, 380, emphasis in original). This institution would need to carefully manage and constrain military capabilities (especially weapons of mass destruction), ensuring that they are embedded within control systems that require the agreement of multiple, separated authorities, thereby maintaining deterrence while preventing the consolidation of power in a single, centralized entity (Deudney 1995, 225–28).

3.2 Constructivism: The struggle for recognition

Alexander Wendt (2003) argues that, in the future, the world will inevitably become unified under a world state; a global institution with a monopoly on the use of organized violence that is considered to be legitimate. While timing isn’t crucial to the argument, Wendt’s guess is that this will happen within about 200 years. His argument is partly based on the realist argument of how weapons of mass destruction have fundamentally reshaped the international anarchical system, as described above. However, the *inevitability* of a world state lies in *the struggle for recognition*.

“Recognition”, writes Wendt, “is a social act that invests difference with a particular meaning – another actor (‘the Other’) is constituted as a subject with a legitimate social standing in relation to the Self” (2003, 511). Recognition is on the one hand to be seen as a sovereign person with rights and agency in a society of other sovereign people (2003, 511). On the other hand, recognition also means to be accepted as unique and particular. Asymmetric recognition is possible, but not stable; firstly, the other will

struggle for recognition, and suppressing this struggle can be costly. Secondly, asymmetric recognition is unsatisfactory to the “superior”, since recognition from someone perceived as inferior or lacking dignity and worth can never be as valuable as recognition from an equal. Therefore, “the only way to secure fully stable recognition from the Other is to reciprocate it” (Wendt 2003, 513–14). The desire for recognition includes being acknowledged as a member of a particular group.

Wendt argues that the struggle for recognition is as much constitutive in the international system as the struggle for security. Individuals and groups want recognition so much that they sometimes sacrifice their security for it. Therefore, the struggle for recognition constitutes a ‘bottom-up’ mechanism that contributes to driving the international system towards a world state.

As states first come to recognize each other, war aims become more limited, which also reduces individuals’ interest in such wars, as they no longer threaten the end of nations. The reduced motivation for interstate conflict produces a situation where nations peacefully coexist, but where some rogue actors can threaten the system. The possibility of such actors motivates states to cooperate to achieve collective security. While recognition is universal, it is also contingent, as states can still opt out of the system. Wendt argues that mere recognition is insufficient. States and individuals seek the *right* to recognition, and the only thing that can enforce such a right is a world state that can prevent states from opting out. The process towards a world state need not be linear; there may be regressions and fractionalizations. A world state that recognizes and legally enforces the full recognition of all citizens, and has centralized monopoly on violence, is the only stable system in the long run – any other system will eventually break down due to state and/or individual struggles for recognition.

3.3 Liberalism: Trade, institutions and democracy

In international relations theory, liberalism is one of the most influential theories. In this context, three prominent and interrelated theories suggest that a WSG will eventually emerge; commercial peace theory, liberal institutionalism, and democratic peace theory.

3.3.1 Commercial peace theory

According to commercial peace theory, trade between nations is economically rational and is greatly facilitated by novel technology (Russett, Oneal, and Davis 1998; Mousseau 2019). Whereas early trade institutions focused on reducing tariffs and the standardization of products, their modern equivalents place more emphasis on the harmonization of regulations, norms and practices. These can have profound effects on world society. Such agreements in turn create demand for international institutions for settling disputes (Zürn, Binder, and Ecker-Ehrhardt 2012). Moreover, liberal theorists argue that dependence on trade makes wars more costly and more difficult. Over time, as trade relations become deeper and more complex, the economic cost of war will supersede the willingness of nations to wage war. This was part of the rationale of the European Coal and Steel Community, the predecessor of the European Union. Pooling coal and steel (two crucial materials for building war material) would make war between Germany and France “not only unthinkable but materially impossible”, according to the then French minister of foreign affairs, Robert Schuman (1970, 3).

3.3.2 Liberal institutionalism

Robert Keohane argued in *After Hegemony* (2005) that multilateral institutions would grow organically as a response to increased globalization and solve global problems. Keohane argued that international institutions play a key role in international agreements by reducing transaction costs of negotiating treaties and uncertainty about the actions and intentions of other states. They do so by creating structures and frameworks for negotiations, monitoring, and enforcement. Since these institutions are costly to establish, but not to maintain, it becomes functional for states to continue to abide by them, rather than to renegotiate. Such institutions, Keohane argues, can reduce the risk of conflict even when a global hegemon is absent. They do so by three mechanisms: (1) reputation (2) ideas (3) national legislation (Keohane 2020). Over time, nations will become enmeshed in a richer and in some sense more restricting web of institutions.

3.3.3 Democratic peace theory

According to democratic peace theory, liberal democracies are less likely to go to war or engage in security competition, and more likely to cooperate with each other. Proponents of liberalism in international relations believe that the global spread of liberal democracy as a form of government is inevitable. For example, in *The End of History and the Last Man* (1992), Francis Fukuyama argues that the spread of democratic and capitalist institutions reflects a directional history driven by the modernization process, which is underpinned by advances in science and technology. Fukuyama and other liberals argue that liberal democracy and free markets constitute the best possible form of regime in terms of satisfying human needs, “and therefore can be expected to be more universal and more durable than other regimes or other principles of political organization” (Fukuyama 1995, 29). In an essay written two decades later, Fukuyama notes that no other political ideology has yet emerged to threaten liberal democracy on the global stage (Fukuyama 2012). Since democratic governments will not be hostile against other democracies, as liberal democracy becomes a universal form of government, it will greatly increase trust and cooperation among nations, accelerating and deepening the processes of commercial and institutional integration. Moreover, this will lead to mutual disarmament, as nation states will find it rational to reduce spending on defense, when the perceived risk of foreign aggression is reduced.

To conclude, liberal theorists in international relations predict that strong structural forces guide the political evolution of the international systems, towards more trade, global institutionalization and liberal democracy. These processes are believed to enhance each other. Trade leads to stronger institutions and economic interdependence, but also to modernisation and prosperity, which in turn promotes democracy. Global institutions promote trust and trade, and reduce the need for diverting resources to military spending. When these processes combine and interact, a WSG is likely to emerge. The “end point” of this process is not a world state, but rather a world union of states that is so richly intertwined that conflict is virtually impossible, as for example the EU. For the purposes of the argument presented here, the endpoint according to liberal theory is, *mutatis mutandis*, equivalent to a world state, and an instance of a WSG.

4. Objections

We have listed various ways in which the world system could evolve according to different theories in IR. We remain agnostic as to how, or what version of a WSG is likely to emerge. We merely propose that one of these versions is likely to be obtained in the future.

4.1 Only a minor reduction in extinction risk

David Thorstad (2023) briefly considers international unity as a possibility that could reduce extinction risk. He argues that the main difference between a WSG and the current state of affairs is that currently, states have only an incentive to care about the survival of their citizens. If the world were to be unified, then global decision makers would have incentives to care about humanity as a whole. Thus, a WSG would place greater priority on preventing extinction than current states. However, Thorstad assumes that the difference in incentives would be proportional to the difference in the share of humanity that such a state would have (100%) and that of other states. Since the most powerful nations already care for a significant fraction of the world's citizens (the US population is 4,2% of the world, the population in China is 17%), the incentives of a world state to care for all of mankind would amount to 20 times the incentives that the US government has. This, according to Thorstad, should not be enough to reassure those who believe extinction risk is high (2023, 388–89).

However, as we have argued here, a world state or other WSGs would reduce extinction risk as a consequence of altering the structural features of the international system. Such changes would make war and security competition less likely, and international collaboration more likely. Thus, the difference that a WSG would make is not by increasing the salience of such risks, but by changing the dynamics resulting from the structure of the system itself.

4.2 Is a world system of government a stable outcome?

We have argued that a WSG would significantly reduce extinction risk. But the time of perils hypothesis requires that the reduction be permanent, or at least very long lasting. If a WSG is an unstable system that is likely to unravel after a few centuries, then such a system may not imply that the time of perils hypothesis is correct. However, several proponents of the theories discussed here do in fact believe that a WSG is a stable structure.

Alexander Wendt (2003) is quite clear in his view, that only a world state (an instance of a WSG) would be able to ensure the right to recognition for all, and thus is the only system that can be stable. Francis Fukuyama and other proponents of liberal democracy believe, for different reasons, that their form of WSG would be stable. According to liberal peace theory, democracies are unlikely to wage war against each other. If all nations are democratic, then they have no reason to spend resources on the military. Fukuyama (1992) argues that liberal democracy has already won the ideological struggle of humanity. While not all liberals share his optimism, many do believe that when liberal democracy becomes the global hegemonic ideology, it will provide a stable and long-lasting foundation for a resilient WSG. Finally, realists such as Deudney also suggest that an international system based on the reciprocal control of

the means of destruction would also be stable, at least as long as Earth is the only geopolitical actor (Deudney 2019).

4.3 Will a world system of government be too late?

The time of perils hypothesis claims that the time period in question will be a few centuries. Apart from in Wendt, the IR literature does not predict when a WSG will emerge. This aspect matters, because the longer it takes for a WSG to emerge, the more extinction risk there is in the future. Whether a WSG emerges in a few centuries or whether it will take millennia cannot be answered with any degree of certainty. However, there are some reasons to believe that if such a system is likely to emerge eventually, then we should expect it to emerge within a few centuries rather than a few millennia.

- Global institutions. As David Held and others have observed, there has been a rapid growth and strengthening of international norms and institutions in the last 50 years, from the Helsinki Accords (1975), to the UN Convention on the Law of the Sea (1994) and the establishment of the International Criminal Court (2002) (Follesdal 2011).
- Global trade. The sum of global trade has increased dramatically in the last 50 years, from about 25% of global GDP in 1972 to about 63% in 2022 (Ortiz-Ospina 2024).

Extrapolating from these trends, and assuming that liberal theorists are right with regards to the role of global trade and institutions, suggests that a WSG, if it is likely to emerge, would emerge within a few centuries.

4.4 The Earth is too large to be dominated by a single hegemon

John Mearsheimer, a leading proponent of offensive realism, argues that a WSG formed by means of peaceful institutional growth is fundamentally unfeasible due to the anarchic nature of the international system. He posits that the absence of a central authority compels states to pursue power to ensure their survival, leading to perpetual competition and conflict. This natural bias of the international system cannot, he argues, be overcome by institution building. Institutions, according to Mearsheimer, reflect rather than shape state interests, serving primarily as tools for powerful states to pursue their national objectives. Thus, states that aim at persevering their sovereignty will not peacefully subject themselves to institutions that are, *de facto*, power projection tools for other states.³

Moreover, Mearsheimer contends that while regional hegemony is attainable, global hegemony is not, primarily because geographical barriers like oceans inhibit the projection of military power necessary for global dominance. He asserts that the “stopping power of water” makes it exceedingly difficult for any state to conquer and control distant regions, thereby preventing the emergence of a single world government. This structural constraint ensures that the international system remains anarchic,

³ https://www.jstor.org/stable/2539078?utm_source=chatgpt.com

with states continually vying for power and security.⁴

Mearsheimer's first objection is disputed by liberal internationalists, and will not be discussed here in greater detail. Moreover, we have reason to believe that Mearsheimer is far too pessimistic with regards to the geographic barriers posed by oceans. Historically, the British empire is the nation that came closest to global hegemony, but faced persistent strategic limitations in projecting decisive military control onto other major powers located far from Europe. However, in the last 200 years, technology has evolved in ways that allow military power projection over greater distances than ever, including nuclear powered fleets, space based assets, high altitude and long endurance unmanned aerial systems, and cyber warfare. A future potential global hegemon would have global power projection capabilities far beyond those of the British Empire.

To sum up, while Mearsheimer is correct to note that the world oceans have historically proven to be formidable barriers to global power projection, these barriers are less formidable today and are likely to be even less so in the future.

5. Conclusion

As our review suggests, several proponents of the most prominent theories (Mearsheimer and Rosato 2023) in international relations have argued that a world system of governance will emerge in the future.

We have also argued that these outcomes will lead to a significant reduction in extinction risk, by reducing the risk of armed conflict, great power competition and by increasing the possibility for global cooperation. The time of perils hypothesis implies that extinction risk will, after some time, be significantly lower than it is today. While this hypothesis seems to be popular among researchers concerned with extinction risk, it has not been credibly defended, as Thorstad (2023) argues.

This argument strengthens the case for the time of perils hypothesis. While the argument presented here may not strengthen the claim that human civilization and its successors may prevail for a billion or a trillion years, it certainly strengthens the case that the centuries and perhaps millenia following this period are likely to be survivable. Relative to the outright rejection of the time of perils, our arguments predict a far larger future, and a subsequent far larger importance of that future in our moral thinking.

⁴ The Tragedy of Great Power Politics.

References

- Baji, Tomohito. 2021. "Nuclear One-Worldism." In *The International Thought of Alfred Zimmern: Classicism, Zionism and the Shadow of Commonwealth*, edited by Tomohito Baji, 179–210. Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-66214-1_5.
- Beckstead, Nicholas. 2013. "On the Overwhelming Importance of Shaping the Far Future." Rutgers University - Graduate School - New Brunswick. <https://doi.org/10.7282/T35M649T>.
- Bing, Chris, and Joel Schectman. 2024. "Pentagon Ran Secret Anti-Vax Campaign to Incite Fear of China Vaccines." *Reuters*, June 14, 2024. <https://www.reuters.com/investigates/special-report/usa-covid-propaganda/>.
- Bostrom, Nick. 2003. "Astronomical Waste: The Opportunity Cost of Delayed Technological Development." *Utilitas* 15 (3): 308–14. <https://doi.org/10.1017/S0953820800004076>.
- . 2013. "Existential Risk Prevention as Global Priority." *Global Policy* 4 (1): 15–31. <https://doi.org/10.1111/1758-5899.12002>.
- Burnham, James. 1947. *Struggle for the World*. New York: The John Day Company, inc.
- Cabrera, Luis. 2004. *Political Theory of Global Justice: A Cosmopolitan Case for the World State*. 1st edition. Abingdon, Oxon: Routledge.
- Deudney, Daniel. 1995. "Nuclear Weapons and the Waning of the Real-State." *Daedalus* 124 (2): 209–31.
- . 2019. "Going Critical: Toward a Modified Nuclear One Worldism." *Journal of International Political Theory* 15 (3): 367–85. <https://doi.org/10.1177/1755088218796689>.
- Dufek, Pavel. 2013. "Why Strong Moral Cosmopolitanism Requires a World-State." *International Theory* 5 (2): 177–212. <https://doi.org/10.1017/S1752971913000171>.
- Follesdal, Andreas. 2011. "Cosmopolitan Democracy: Neither a Category Mistake nor a Categorical Imperative." In *Global Democracy: Normative and Empirical Perspectives*, edited by Daniele Archibugi, Mathias Koenig-Archibugi, and Raffaele Marchetti, 96–114. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511977992.005>.
- Fukuyama, Francis. 1992. *The End of History and the Last Man*. New York, NY: The Free Press.
- . 1995. "Reflections on the End of History, Five Years Later." *History and Theory* 34 (2): 27–43. <https://doi.org/10.2307/2505433>.
- . 2012. "The Future of History." *Foreign Affairs*, January 1, 2012. <https://www.foreignaffairs.com/articles/2012-01-01/future-history>.
- Häggström, Olle. 2016. *Here Be Dragons: Science, Technology and the Future of Humanity*. Oxford, New York: Oxford University Press.
- Hanson, Robin. 1998. "The Great Filter - Are We Almost Past It?" September 15, 1998. <https://mason.gmu.edu/~rhanson/greatfilter.html>.

- Hess, G. D. 2021. "The Impact of a Regional Nuclear Conflict between India and Pakistan: Two Views." *Journal for Peace and Nuclear Disarmament* 4 (sup1): 163–75. <https://doi.org/10.1080/25751654.2021.1882772>.
- Hoffman, Philip T. 2015. *Why Did Europe Conquer the World?: Princeton University Press*. Princeton University Press. <https://doi.org/10.1515/9781400865840>.
- Keohane, Robert O. 2005. *After Hegemony: Cooperation and Discord in the World Political Economy*. Revised edition. Princeton, N.J: Princeton University Press.
- . 2020. "Understanding Multilateral Institutions in Easy and Hard Times." *Annual Review of Political Science* 23 (Volume 23, 2020): 1–18. <https://doi.org/10.1146/annurev-polisci-050918-042625>.
- Leitenberg, Milton, Raymond A. Zilinskas, and Jens H. Kuhn. 2012. *The Soviet Biological Weapons Program: A History*. Illustrated edition. Cambridge (Mass.): Harvard University Press.
- Lu, Catherine. 2021. "World Government." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Spring 2021. Metaphysics Research Lab, Stanford University. <https://plato.stanford.edu/archives/spr2021/entries/world-government/>.
- MacAskill, William. 2022. *What We Owe the Future*. 1st edition. New York, NY: Basic Books.
- Mearsheimer, John J., and Sebastian Rosato. 2023. *How States Think: The Rationality of Foreign Policy*. Yale University Press. <https://doi.org/10.2307/jj.5666733>.
- Meselson, Matthew, Jeanne Guillemin, Martin Hugh-Jones, Alexander Langmuir, Ilona Popova, Alexis Shelokov, and Olga Yampolskaya. 1994. "The Sverdlovsk Anthrax Outbreak of 1979." *Science* 266 (5188): 1202–8. <https://doi.org/10.1126/science.7973702>.
- Mousseau, Michael. 2019. "The End of War: How a Robust Marketplace and Liberal Hegemony Are Leading to Perpetual World Peace." *International Security* 44 (1): 160–96. https://doi.org/10.1162/isec_a_00352.
- Ord, Toby. 2020. *The Precipice: Existential Risk and the Future of Humanity*. Illustrated edition. New York: Hachette Books.
- Ortiz-Ospina, Esteban. 2024. "In 2022, the Sum of Imports and Exports across Countries Amounted to 63% of Global GDP." *Our World in Data: Daily Data Insights* (blog). August 1, 2024. https://ourworldindata.org/data-insights/in-2022-the-sum-of-imports-and-exports-across-countries-amounted-to-63-of-global-gdp?utm_source=chatgpt.com.
- Parfit, Derek. 2011. *On What Matters: Volume Two*. Oxford University Press.
- Reisner, Jon, Gennaro D'Angelo, Eunmo Koo, Wesley Even, Matthew Hecht, Elizabeth Hunke, Darin Comeau, Randall Bos, and James Cooley. 2018. "Climate Impact of a Regional Nuclear Weapons Exchange: An Improved Assessment Based On Detailed Source Calculations." *Journal of Geophysical Research: Atmospheres* 123 (5): 2752–72. <https://doi.org/10.1002/2017JD027331>.
- Russett, Bruce, John R. Oneal, and David R. Davis. 1998. "The Third Leg of the Kantian Tripod for Peace: International Organizations and Militarized Disputes, 1950–85." *International Organization* 52 (3): 441–67. <https://doi.org/10.1162/002081898550626>.

- Sagan, Carl. 1994. *Pale Blue Dot: A Vision of the Human Future in Space*. 1st edition. New York: Random House.
- Sagan, Carl, and Steven J. Ostro. 1994. "Dangers of Asteroid Deflection." *Nature*, no. 368 (April), 501.
- Scheidel, Walter. 2019. *Escape from Rome: The Failure of Empire and the Road to Prosperity*. Princeton University Press. <https://doi.org/10.2307/j.ctvg25294>.
- Schlosser, Eric. 2014. *Command and Control: Nuclear Weapons, the Damascus Accident, and the Illusion of Safety*. Reprint edition. Penguin Books.
- Schuman, Robert. 1970. "The Schuman Plan Declaration." Edited by Kathleen A. Lynch. *European Community*, no. 194 (May).
- SIPRI. 2024. "Global Military Spending Surges amid War, Rising Tensions and Insecurity." April 22, 2024. <https://www.sipri.org/media/press-release/2024/global-military-spending-surges-amid-war-rising-tensions-and-insecurity>.
- Thorstad, David. 2023. "High Risk, Low Reward: A Challenge to the Astronomical Value of Existential Risk Mitigation." *Philosophy & Public Affairs* 51 (4): 373–412. <https://doi.org/10.1111/papa.12248>.
- Wendt, Alexander. 2003. "Why a World State Is Inevitable." *European Journal of International Relations* 9 (4): 491–542. <https://doi.org/10.1177/135406610394001>.
- Young, Iris Marion. 2002. *Inclusion and Democracy*. Oxford: Oxford University Press.
- Zürn, Michael, Martin Binder, and Matthias Ecker-Ehrhardt. 2012. "International Authority and Its Politicization." *International Theory* 4 (1): 69–106. <https://doi.org/10.1017/S1752971912000012>.

The Institute for Futures Studies is an independent research foundation financed by contributions from the Swedish Government and through external research grants. The institute conducts interdisciplinary research on future issues and acts as a forum for a public debate on the future through publications, seminars and conferences.

This working paper has been produced by the Mimir Center for Long Term Futures Research at the Institute for Futures Studies.

© Institute for Futures Studies and the authors