

REVERSE TEMPORAL SOVEREIGNTY

Towards a Global Legal Contract for Generations, the Future, and

Entities

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DEDICATION

To those who were not born, yet whose rights exist now in the womb of human consciousness.

To every researcher who dares to break the chains of linear time to create a justice that transcends the limits of human life.

To the future, which is not a place we go to, but a reality we create with our decisions today.

AUTHOR'S PREFACE

Why This Book Now?

We stand on the edge of an unprecedented existential transformation in human history. Our decisions are no longer confined to their immediate or decades-long effects, but have become capable of shaping the fate of the planet, consciousness, and the coming centuries. Climate change, artificial intelligence, space exploration, genetic engineering, and planetary engineering challenge the traditional foundations of law, which was designed for a simpler, slower, and more linear world.

Traditional law suffers from temporal blindness. It looks to the past to resolve disputes, and to the present to regulate current relationships. But it remains completely blind to the future, except in a weak, negative, and protective formula of preventing clear and direct harm. This short-sighted vision is no longer sufficient. We need a legal revolution that redefines time itself within the judicial and legislative system.

This book does not merely present a new academic theory, but proposes a bold, foundational model called Reverse Temporal Sovereignty. It is a concept that transcends the symbolic representation of future generations, granting the future an actual presence, an effective voice, a tangible impact, and a binding role in current decision-making. It represents a radical shift in the philosophy of law, moving from the logic of the act to the logic of anticipation, and from the narrow human-centric responsibility to the universal temporal responsibility.

I have written this book in a clear, direct language, free of unnecessary complexities, relying on sharp and deep logic. My goal is not to dazzle with terms, but to build a compelling argument that pushes legislators, judges, philosophers, and decision-makers to rethink the core of legal responsibility. This book is a call to challenge, the greatest challenge that requires exceptional intellectual courage to exit the traditional legal comfort zone, and enter unexplored areas where law intersects with philosophy, advanced sciences, and universal ethics.

I invite you to read these pages not as passive consumers of knowledge, but as partners in building a new legal framework that befits the challenges of our time and ensures a justice that transcends the limits of our individual lives. Are we ready to grant the future the right to object to our present? Do we have the courage to restrict our current freedom to protect those who will come after? The answers to these questions will determine our fate together.

CHAPTER ONE

Explaining the Temporal Crisis in Contemporary Law

Section One: The Shortcomings of the Linear Legal Model

Modern law emerged under an Enlightenment vision, where time is understood as a straight, homogeneous line flowing systematically from the past through the present towards the future. In this, the legal reality is determined based on this line, the causal relationship is direct and simple between a preceding event and a subsequent result. This model served the legal system for centuries, but it collapsed in the face of the complexities of the contemporary world.

In the era of complex, networked systems, causality is no longer linear. A single decision taken today regarding carbon emissions, the deployment of artificial intelligence, or genetic modification may generate intertwined, non-linear effects that accumulate and interact with other variables to produce catastrophic or transformative results after decades or centuries. Traditional law, with its tools based on proving direct causality and immediate, proven harm, is incapable of dealing with this type of distributed, cumulative causality over time.

Moreover, the law relies on the principle of legal personality, which is tied to the existence of a conscious will and the ability to bear responsibility. Future generations, advanced environmental systems, virtual entities, and artificial intelligence lack these characteristics in the traditional sense, which excludes them from the circle of direct legal protection. We face a massive representational gap, where the interests most exposed to danger are the least capable of defending themselves legally.

Section Two: The Illusion of Temporal Neutrality in Law

Traditional law claims that it is temporally neutral, meaning that it treats all eras with the same standard. But this claim hides a deep bias in favor of the present. The rules of the present, such as the statute of limitations, conditions of claims, and concepts of proof and direct harm, are all designed to serve the stability and certainty of the present, often at the expense of future justice.

This bias for the present is clearly evident in economic policies that prefer short-term growth over long-term sustainability, and in environmental laws that allow the exploitation of non-renewable resources without guarantees of fair compensation for future generations. The alleged temporal neutrality of law is, in reality, a form of temporal colonialism, where the present exploits the resources of the future and its rights without consent or compensation.

Section Three: The Need for an Interactive Networked Temporal Model

To confront these challenges, we need a radical shift from the linear model to an interactive, networked temporal model. In this model, time is understood as a network of intertwined nodes, where every present decision affects multiple future paths, and current decisions are affected by future expectations and commitments towards the future.

This model requires redefining fundamental concepts such as causality, responsibility, representation, and justice. Causality becomes probabilistic and cumulative. Responsibility extends to include unintended consequences in the distant future. Representation expands to include non-present entities temporally. And justice is measured not only by fair distribution in the present, but by fairness across generations and time.

CHAPTER TWO

The Philosophical and Ontological Foundations of Reverse Temporal Sovereignty

Section One: What is Beyond Human Law

Reverse temporal sovereignty relies on the philosophy of what is beyond the human, which challenges traditional human centrality. Man is no longer the sole measure of legal and moral value. Instead, it recognizes the intrinsic value of non-human entities, whether they are systems, environments, animals, artificial intelligence, or future human generations.

This shift does not mean the abolition of human rights, but the expansion of the circle of moral and legal consideration to include the conscious web of life in its various forms. It is an acknowledgment that our existence is closely linked to the existence of others, and that our responsibility extends to include preserving the conditions for the continuation of conscious life on the planet and beyond.

Section Two: Conditional Representational Capacity

Instead of granting full legal personality to future entities, which is an impractical and controversial matter, the principle proposes the concept of conditional representational capacity. This capacity is not an inherent right of the future entity itself, but an executive mechanism that grants its accredited representatives the right to defend its defined and contestable interests.

This capacity relies on three fundamental conditions: First, the existence of a clear and definable temporal interest, such as the right to a stable climate, sufficient water resources, or preserved biological diversity. Second, the existence of a serious and reversible risk that

threatens this interest. Third, the inadequacy of current legal mechanisms to protect this interest effectively.

Section Three: Temporal Moral Responsibility

Reverse temporal sovereignty draws on the moral responsibility developed by the philosopher Hans Jonas, which emphasizes our moral duty to ensure the continuation of authentic human life on Earth. These ethics impose on us a strict duty of caution in our actions, especially when their consequences are irreversible or completely unknown.

These ethics integrate with the principle of intergenerational justice, which demands the preservation of options, the maintenance of quality, and the guarantee of fairness in the distribution of burdens and benefits over time. It also relies on the precautionary principle, which justifies taking preventive measures even in the absence of complete scientific certainty, when the potential risks are very large.

CHAPTER THREE

The Institutional Framework for the Temporal Agency

Section One: The Global Temporal Agency Council

The principle proposes the establishment of the Global Temporal Agency Council as an independent, advisory, and high-level body. The council consists of a diverse group of experts, including constitutional jurists, international law scholars, climate and environment scientists, experts in predictive modeling and artificial intelligence, philosophers, ethicists, and representatives of original and global civil societies.

Members of the council are appointed for a limited term with strict guarantees of independence, integrity, and the prevention of conflicts of interest. The council is tasked with general supervision over the application of the principle of reverse temporal sovereignty, adopting and defining the criteria for temporal agents, reviewing and adopting the predictive models used in temporal assessments, and issuing recommendations and executive binding guidelines to legislative, judicial, and national bodies.

Section Two: The Temporal Agent

The temporal agent is the executive legal personality that represents the interests of the future. It is appointed by the Global Temporal Agency Council based on its proven expertise, objective independence, and specialization in the relevant field. The temporal agent enjoys broad powers that include filing preventive lawsuits before national and international courts, participating in drafting legislation and policies, demanding the conduct of binding temporal impact assessments, and monitoring the implementation of temporal commitments.

The temporal agent does not possess direct legislative or executive power, but rather possesses the power of review, binding, and executive proposal. The agent is subject to a strict professional honor charter that binds them to temporal neutrality, objectivity, and transparency.

Their actions are subject to periodic review, with the possibility of their dismissal in cases of proven shortcoming or deviation from professional standards.

Section Three: The Accredited Global Predictive Registry

An accredited global predictive registry is established as an open, transparent database that includes the algorithms, temporal scenarios, and reference data that have met the adopted scientific and judicial standards for evidence. The registry aims to unify the criteria for predictive evidence, prevent the use of biased or undocumented models, and enhance trust in temporal evaluation operations.

The registry is subject to independent management, and follows strict criteria for algorithmic review and peer scrutiny. The registry does not adopt a single model, but encourages the multiplicity of models and the comparison of different scenarios, with a clear declaration of the margins of uncertainty and the fundamental assumptions for each model.

CHAPTER FOUR

The Mechanisms of the Binding Temporal Impact Assessment

Section One: The Scope of Mandatory Application

The binding temporal impact assessment is applied mandatorily to all projects, policies, and legislation that meet one or more of the following characteristics: First, that it has a long-term impact exceeding twenty years. Second, that it touches upon non-renewable natural resources or sensitive environmental systems. Third, that it includes emerging technologies with cumulative, incompletely known effects, such as advanced artificial intelligence or genetic engineering. Fourth, that it affects the fundamental rights of future generations, such as the right to health, a clean environment, or culture.

Section Two: Detailed Implementation Stages

The operational process of the binding temporal impact assessment consists of six interconnected and precise stages.

The first stage is determining the temporal scope and the targeted future interests, with precise cooperation between the project owner and the appointed temporal agent.

The second stage is selecting and appointing the appropriate temporal agent from the registry of accredited agents at the Temporal Agency Council.

The third stage is conducting comprehensive predictive modeling, using a diverse set of approved models from the global registry, developing multiple scenarios that include interactive, prevalent, and pessimistic cases, with a precise determination of the margins of error and uncertainty.

The fourth stage is drafting the comprehensive temporal report, which documents the expected cumulative effects, identifies the points of no return, and presents options for mitigation and adaptation, recommending the quality of evidence used.

The fifth stage is public presentation and discussion, where the temporal report is published publicly for a specified period to receive observations and objections from experts and

independents. Then the final report is submitted, with a summary of the received observations and the response to them, to the competent legislative or judicial authority. The competent authority is procedurally bound to respond to every recommendation in the report, accepting, rejecting, or modifying it with clear, written justifications.

The sixth stage is periodic review and adaptation, where the adopted decisions based on the temporal assessment are subject to mandatory review every five to seven years, or when essential scientific or realistic developments occur, to ensure the continued fulfillment of their activity and their effectiveness in protecting future interests.

Section Three: Criteria for the Quality of Predictive Evidence

For a predictive model to be accepted as temporal evidence, it must meet a strict set of scientific and legal criteria. The model must be transparent in its methodology and algorithms, and capable of being re-tested and verified by independent parties. Its fundamental assumptions must be declared and justified scientifically. The model must determine the margin of potential error and the degree of uncertainty associated with its predictions, avoiding the presentation of definitive expectations in light of complex systems.

The model must be subject to an independent, international peer review, and be free from any undeclared institutional or commercial bias. The use of ensemble modeling is strongly encouraged, meaning the integration of the results of several different models to reach a more reliable and robust estimate. Any model that fails to meet these criteria is automatically excluded from the temporal assessment process.

CHAPTER FIVE

Judicial Controls and Balance Tests

Section One: The Temporal Proportionality Test

The temporal proportionality test is considered the cornerstone in preventing the misuse of the principle. This test aims to ensure that the restrictions or burdens imposed on the present to protect future interests are proportionate to the severity of the expected harm and the degree of certainty of its occurrence. The concerned party must prove that there are no less restrictive alternatives to current freedoms or rights that can achieve the same level of future protection.

This test prevents the imposition of excessive or arbitrary restrictions on current development or innovation out of fear of distant, low-probability future risks, or of minor impact. It balances between the right of the present to progress and prosperity, and its duty to protect the future, preventing the dominance of one over the other.

Section Two: The Predictive Reliability Test

This test focuses on scientific and judicial scrutiny of the quality of the predictive evidence presented. The court or regulatory body examines the methodology of the used model, the extent of its transparency, its subjection to peer review, the clarity of its assumptions, and the precision of determining the margins of error. If it becomes apparent that the model relies on

doubtful data, closed algorithms, or unrealistic assumptions, the temporal report is rejected for lack of reliability.

This test aims to separate rigorous science from random guesswork, and to ensure that fateful decisions that affect the future are based on the best currently available knowledge, while acknowledging the limits of that knowledge.

Section Three: The Cross-Temporal Rights Balance Test

This test is the deepest philosophically and the most difficult to apply. It requires the judge or legislator to conduct a precise balance between the fundamental rights guaranteed to individuals in the present, and the vital interests of future generations or entities. It is not permissible to sacrifice confirmed fundamental human rights in the present, such as the right to life, dignity, or equality, for hypothetical and unconfirmed future interests.

At the same time, it is not permissible to neglect essential, non-compensable future interests, such as the suitability of the planet for life, out of consideration for relatively minor current rights. This test requires precise, reasoned, and continuous jurisprudence that takes into account the nature of conflicting rights, the degree of certainty related to them, and the moral and legal consequences of each choice.

CHAPTER SIX

Advanced Applied Case Studies

Section One: The Climate and Energy Case Across Generations

Imagine a country planning to build a massive coal-fired power plant to meet its increasing electricity needs over the next two decades. A temporal agent specialized in climate and energy is appointed. The temporal assessment reveals, using approved climate models, that the plant's emissions will contribute significantly to exceeding the threshold of two degrees Celsius of global warming by the middle of the century, causing irreversible damage to agriculture, water sources, and food security for future generations.

The temporal agent presents recommendations to cancel the project, or completely convert it to renewable sources with energy storage, or compensate for the emissions completely and guaranteed through breakthrough carbon capture technologies. The constitutional court studies the case, applies the tests of proportionality, reliability, and rights balance, and may rule the project unconstitutional in its current form, ordering its redesign to align with the state's temporal commitments towards future citizens, with the development of a fair transitional plan for workers in the current coal sector.

Section Two: The Case of General Artificial Intelligence and Cumulative Algorithmic Bias

A global technology company intends to launch an advanced general artificial intelligence system in the employment and healthcare sectors. A temporal agent specialized in the ethics of artificial intelligence and digital rights is appointed. The temporal assessment shows that the

system's algorithms, due to hidden biases in the training data, may lead to cumulative, systematic discrimination against certain groups over decades, which reduces their opportunities in work and health and creates deep, irreparable social gaps.

The temporal agent recommends imposing strict conditions for algorithmic transparency, periodic and independent review of training data and results, and the establishment of effective human override mechanisms, and the creation of a compensation fund for those potentially harmed in the future. The regulatory body adopts the recommendations, imposes a conditional license for the system, requiring the company to comply with these conditions under the penalty of withdrawing the license and imposing huge fines.

Section Three: The Case of Deep-Sea Mining in the Unknown

An international consortium submits a request to extract minerals from the ocean floor in an area rich in unique and completely undiscovered biological diversity. A temporal agent representing the interests of marine ecosystems and future generations that may benefit from potential scientific and medical discoveries in this area is appointed. The temporal assessment indicates that mining operations may cause the permanent extinction of species not yet discovered, and the destruction of habitats that cannot be restored, depriving the human collectivity of future benefits of unknown value.

The temporal agent recommends imposing a temporary ban on mining in the area until more comprehensive studies are conducted, or completely designating protected areas from any extractive activity. The International Seabed Authority issues a judicial ruling recommending the establishment of a temporal marine protected area, preventing commercial exploitation until the long-term environmental effects are sufficiently understood, giving priority to preservation over exploitation in light of scientific uncertainty.

CHAPTER SEVEN

Criticisms, Responses, and Jurisprudence

Section One: The Criticism of the Dictatorship of the Future and the Freezing of the Present

The most prominent criticism directed at the principle is that it may lead to a dictatorship of the future, where the decisions of the present are frozen, and its rights and freedoms are restricted out of fear of catastrophic future scenarios that may not materialize. Critics see that this reduces current democracy and the sovereignty of the people in deciding their fate.

The jurisprudential response confirms that the principle does not grant the future an absolute veto right, but integrates it into a precise operational balance. The tests of proportionality, balance, and temporal rights are specifically designed to prevent the freezing of the present. The principle does not prevent development, but directs it towards more sustainable and responsible paths. It calls for a comprehensive, temporal democracy, not a short-sighted democracy that excludes the most affected voices from its decisions.

Section Two: The Criticism of Fake Representation and Elitist Exploitation

Some criticize the idea of representing non-existent entities as fake representation, hiding behind it elitist agendas of a certain group of technocrats and experts who monopolize the definition of future interests. Critics fear that the temporal agent becomes a tool for passing ideological policies under the guise of scientific neutrality.

The response to this criticism lies in the precise institutional design. The Global Temporal Agency Council is multi-disciplinary, transparent, and its members are chosen through objective criteria and peer review. The accredited global predictive registry is open-source and subject to scrutiny by any independent party. The right of opposition and public participation is guaranteed in the stage of presentation and discussion. These combined controls reduce the risk of elitist monopoly and enhance the democratic legitimacy of the principle.

Section Three: The Criticism of Administrative Complexity and Economic Cost

Other critics point out that the application of the principle will add complex, costly bureaucratic layers to the decision-making process, which slows down development and increases costs on investors and the state.

The response confirms that the true cost lies in non-application. Environmental, social, and long-term damages, such as climate disasters or uncontrolled technological crises, cost the global economy trillions of dollars and cause immense human suffering. Early temporal assessment helps in avoiding these exorbitant costs later. Moreover, procedures can be simplified for small-scale projects, and focus can be placed on large projects of strategic impact. The goal is to achieve administrative efficiency while maintaining scientific and legal rigor.

CHAPTER EIGHT

The Future Vision and the Roadmap

Section One: From the Principle to the International Protocol

The first step towards activating reverse temporal sovereignty is drafting an additional international protocol to the human rights agreements or climate agreements, officially recognizing the principle of temporal representation and defining the general framework for the Global Temporal Agency Council and assessment mechanisms. This protocol will serve as a declaration of global principles that obligates signatory states to integrate temporal considerations into their national legislation.

Section Two: Integration with Regional and National Legal Systems

After the adoption of the international protocol, the second stage begins with the adaptation of regional legal systems, such as the European Union or the African Union, to include temporal agency mechanisms in their environmental, technological, and constitutional laws. Then the transition to the national level, where states enact laws establishing national temporal agencies, amend environmental impact assessment laws to include the temporal dimension, and train judges and lawyers to apply temporal balance tests.

Section Three: Building a Culture of Temporal Awareness

The longest and most important stage of application is building a culture of temporal awareness in societies. This requires integrating the concepts of intergenerational justice and temporal responsibility into educational curricula from the early stages. Media institutions and civil society need to play an active role in spreading awareness of the importance of the future and the rights of coming generations. Only when citizens realize that they have a responsibility towards those who were not born, will the principle become an organic part of the social, legal fabric, and not just a technical procedure imposed from above.

CONCLUSION

Reverse temporal sovereignty is not just a new legal theory, but an existential moral call. It is an invitation for humanity to transcend its temporal narrowness, and adopt a broader vision of responsibility that includes all living, conscious beings in the present and the future.

The challenge is greater than just amending laws. It requires a revolution in our way of thinking about time, justice, and the meaning of our existence as humans on a planet with limited resources and fragility. Do we have the courage to face this challenge? The answer will determine not only the fate of coming generations, but the meaning of our humanity, us, here and now.

I present this work as a challenge to the global academic, judicial, and legislative community. I invite you to criticize this proposal, develop it, test it, and improve it. Let us work together to build a legal system that does not only serve those alive today, but ensures justice, dignity, and continuity for everyone who will come after us. The future is not a predetermined fate, but a moral and legal project that we build together, decision by decision.

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