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Future Law, the Power of Prediction, and the Disappearance of Time

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Abstract

The human fascination with the art of predicting the future derives from the practical need to anticipate events to make adequate decisions. While science fiction has undoubtedly contributed greatly to this field, there are a large number of other forms of expression of the same desire to predict the future in almost every field of activity—from the arts to science, from technology to linguistics, and from artificial intelligence to magic—all of which constantly contribute to bringing the future closer to the present. However, there is one field that potentially has the greatest predictive power of them all: that is the field of law. To release this latent power of law, this article argues, a cognitive revolution has to take place, one that is related to the perception of time. Awareness about this cognitive change is dawning and is currently manifesting itself in a general trend derived from related trends of convergence in language and technology. These trends are captured by the rise of the rhetorical figures of oxymora and paradoxes, or so-called "essentially oxymoronic concepts," that increasingly pervade all human activities. Over the course of time, these concepts appear to have shown the magical power of bringing opposites into closer contact and possibly transcending their apparent contradictions to create a new reality. Pondering the future role of law while considering the present perception of time based on the dichotomy of the past and the future, this article inquires how far oxymora and paradoxes such as science fiction and space-time indicate an acceleration, a gradual shrinking and even a possible disappearance of time (as we know it).

***Keywords**:* Science fiction; essentially oxymoronic concepts; future studies; self-fulfilling prophecy; serendipity; legal synesthesia.

Introduction

As its name implies, science fiction is an oxymoron.
[…] It makes manifest worlds upon worlds that are too contradictory to exist.[1]

From a binary or dichotomous perspective, it is often argued that science is descriptive, whereas law is prescriptive.[2] This means that the former seeks to explain by describing *what is*, whereas the latter achieves its aims by prescribing *what ought to be*.[3] Such a dichotomous view has obvious limitations. For one, many fields, such as economics or big data analytics, confirm the need to combine prescriptive and predictive elements.[4] In practice, all fields and activities are equally concerned with future events as all of their protagonists are caught in the present framework of the perception of time. The close connection between law and science is also visible through the way in which predictions made by science are used by law in the form of "major policy decisions intended to ameliorate or solve the problems of society."[5] The reverse is also true, as the law influences and regulates various aspects of science and scientific research.[6]

[1] Csicsery-Ronay, The Seven Beauties of Science Fiction, 8.
[2] Jasanoff, Science at the Bar: Law, 7; Loevinger, "Law and Science as Rival Systems," 67.
[3] Horowitz, Law and Logic, 13.
[4] Gonzalez, Philosophico-Methodological Analysis of Prediction, 338; Deshpande, Security and Data Storage Aspect, 75.
[5] Brunner, "Science and Social Responsibility," 296.
[6] Lawton Smith, The Regulation of Science and Technology; Charrow, Law in the Laboratory, 1–11.

Science, on the other hand, is also related to other fields, such as fiction, manifest in the oxymoron "science fiction" (which has been called "predictive literature"), in which technological, scientific and social aspects have often been successfully anticipated.[7] It has been said that the genre of science fiction emerged from the perception of change through technology and that it does not so much predict a particular change but "predicts *change*."[8] Moreover, the predictions made by science fiction are possible "less because science fiction 'predicts' future developments than because it favors future selection of these developments and orients their use."[9] In this regard, science fiction often reveals "striking similarities between the behaviours of key individuals, and the manner in which certain events have played out."[10] This effect is reinforced by the role that science fiction plays in making specialized scientific knowledge known to the masses.[11] In the form of "speculative fiction," it can be used to "rethink empiricism in posthuman ecologies of the Anthropocene, in the midst of post-truth conditions and growing science denialism" and also as "a way to open up scientific imaginaries, rethinking the relationship between nature, technics, and human 'sense' making."[12] Lastly, it means that science and speculative fiction change the perception of change, which includes time as a privileged subject of science and fiction.[13] This is an important feature because change is believed to be accelerating in the recent epoch, and change is measured by the dimension of time.[14] As the result of an acceleration of the perceived pace of change, the perception of time is accelerating, too and if this continues and intensifies in the coming years, time itself may disappear. Paradoxically, more and more technologies function not only remotely but also in "real-time," such as big data analytics, the Internet of Things, AI, or biometric identification systems. They give a new meaning to the relation between space and time as well as rise to a paradox, according to which time is becoming more "real" for machines and more "unreal" for humans.[15]

The phenomenon of time is certainly not sufficiently understood yet.[16] There is an even poorer understanding of the perception of time, and no dedicated sense organ for time has yet been found.[17] In its present conception, time is generally experienced as flowing in a unilinear direction from the past to the future. In this framework, anticipating the future matters to scientists, lawyers, the clergy, and science fiction writers alike, as it is "where we spend the rest of our lives."[18] More generally, anticipatory acts or predictive behaviors have been called "prerequisites for living organisms to sustain their survival."[19] Therefore, attempts to predict future events are a common activity and a crucial element in decision-making, and they combine descriptive (i.e., how and why decisions are taken), normative (i.e., how ideal people should make decisions, based on logic and reason) and prescriptive (i.e., how real people should and can make decisions) elements.[20] Finally, although it is deemed that much of what we would like to know in advance cannot be predicted, there is a vast amount of successful prediction that is nonetheless possible.[21]

On a general level, it is widely understood that a purely binary or dichotomous presentation of various complex phenomena—such as science and law or prediction and prescription—is too simplistic to provide a full picture. Accordingly, binary, as opposed to polyvalent or fuzzy, logic, has been found to trade "accuracy for simplicity."[22] The same has been found for dichotomous thinking, which bears a danger in its erroneous presumption that there are only two possibilities, creating a false dichotomy in which "we forget the middle and think in extremes, missing important alternatives in the process."[23] For instance, in decision-making, the distinction between descriptive and normative presents itself more as a trichotomy than a dichotomy and is likely to be even more complex or "fuzzy" than that.[24]

[7] Freedman, Interstellar Manned Space Travel, 4.
[8] Asimov, "Foreword," 7.
[9] Slusser, Science Fiction, 252.
[10] Morgan, "New Ways: The Pandemics of Science Fiction," 1.
[11] Michaud, Innovation, Between Science and Science Fiction, 103 and 141.
[12] de Freitas, "New Empiricisms in the Anthropocene," 522.
[13] Nahin, Time Machines; Westfahl. Worlds Enough and Time.
[14] Dyke, "McTaggart and the Truth about Time," 139; Mellor, Real Time II, 48.
[15] McTaggart, "The Unreality of Time," 457.
[16] Rovelli, The Order of Time, 111.
[17] Murphy, Biolinguistics and Philosophy, 124; Mazur, The Clock Mirage, 164.
[18] Rescher, Predicting the Future, back-cover.
[19] Nomura, "How Does Time Flow in Living Systems?" 267.
[20] McFall, "Rational, Normative, Descriptive, Prescriptive, or Choice Behavior?" 46.
[21] Rescher, Predicting the Future, back-cover.
[22] Kosko, Fuzzy Thinking, 21.
[23] Govier, "Problems with False Dichotomies," 31.
[24] Bell, Decision Making; Lootsma, Fuzzy Logic for Planning and Decision Making.

At present, it is noticeable that the approach to complex phenomena increasingly often uses the concepts of "oxymora" or "paradoxes."[25] An "oxymoron" usually denotes a figure of speech "in which apparently contradictory terms appear in conjunction," while a "paradox" is defined as "a seemingly absurd or self-contradictory statement or proposition that may, in fact, be true."[26] However, in practice and in different disciplines or contexts, the two terms are often interpreted differently or used interchangeably, as an oxymoron has also been defined as "a paradox compressed into a single self-contradicting phrase."[27] For this reason, and because they share the feature that their inherent contradiction challenges the dominant dualistic thinking and binary logic, both terms have been summarized under the term "essentially oxymoronic concepts."[28] The notion was also coined to highlight the linguistic and underlying cognitive changes that have taken place since Walter B. Gallie coined the notion of "essentially contested concepts."[29] The shift indicates a cognitive change in reasoning from a dominant culture of contestation to one of contradiction.[30]

It is precisely the frequency with which real phenomena are now being framed by oxymora and paradoxes that raises the question of whether such contradictory worlds are possible only in science fiction or whether they are also found in reality. To explain this differently, perhaps the world is as unreal as science fiction. However, it is perhaps no coincidence that the present age has been described as the "Age of Paradox,"[31] a "Time of Oxymora,"[32] and an "Age of Unreality," the latter, not coincidentally, also being qualified as one in which "everything is an oxymoron."[33]

To assess the future of law or jurisprudence, this paper sets out to explore the extent to which the rise in the use of oxymora and paradoxes is indicative of a change in human perception and cognition. In this regard, the possibility that this change in cognition is triggered by the inherent ability of these concepts to connect opposites, transcend dichotomies, and uncover deeper truths, resulting in a new kind of knowledge is considered.[34] More concretely, it is assumed that these concepts affect not just dualistic thinking and binary logic in general but also on one of the most important pillars of our existence, namely the perception that time is caught between the two apparent opposites of past and future. In this regard, it appears that the current rise in the number of oxymora and paradoxes is linked to a perceived acceleration of time. To take this further, if the pace of change, as measured in time, continues to increase, then at some point, time itself is at risk of disappearing. The disappearance of time, at least in the form in which we currently perceive it, is not only supported by relevant evidence in the convergence of language and technology it is also recommended by physicists.[35] The disappearance of time also affects decision-making and planning and, subsequently, manifests itself in law. The enforcement of laws is already increasingly becoming instant, thus, shrinking the period of time between an alleged violation of a norm and the sanction of the contravening behavior. Future innovative technologies combining artificial intelligence (AI) with big data analytics can be expected to shrink this time period still further. They will allow, for instance, predictive forms of law enforcement in the form of software concepts that are designed to predict "the locations of future crimes before they occur."[36] Their realization will further alter the perception of time by crossing the line that delimits the present from the future.

The prospects of such possibilities, thus, require that preparations for the future and an alteration of the perception of time be made in the present. In this task, the rhetorical figures of oxymoron and paradox can serve as indicators of the future and language of the future because of their ability to express not only "the ineffability of the experienced" but also the "not-yet-experienced."[37] As such, these concepts also allow us to ponder the likely possibility that humans will experience a new sensation of time and eventually become "unstuck in time" or experience the past, present, and future simultaneously, as described by Kurt Vonnegut.[38] Such a change in the perception of time can also be expected to mean a paradigm shift for the future of law and jurisprudence. This shift entails the possibility that the future of law will constitute a new *nomos*, a legal universe made of a set of rules, created by novel cognitive powers of collective humanity. Such a change in the perception of time will inevitably affect the function of law and jurisprudence in the future. Most importantly, it may help to establish law as

[25] Howard, "Paradexity," 210.
[26] Soanes, Concise Oxford English Dictionary, 1024 and 1037.
[27] Vendler, The Music of What Happens, 242.
[28] Neuwirth, "Essentially Oxymoronic Concepts."
[29] Gallie, "Essentially Contested Concepts."
[30] Neuwirth, Law in the Time of Oxymora, 3–4.
[31] Handy, The Age of Paradox.
[32] Neuwirth, Law in the Time of Oxymora.
[33] Bennis, The Essential Bennis, 403.
[34] West, Empirical Paradox, Complexity Thinking, 1.
[35] Rovelli, "The Disappearance of Space and Time," 25.
[36] Sommerer, "Geospatial Predictive Policing," 147.
[37] Haas, Sermo mysticus, 27–28.
[38] Vonnegut, Slaughterhouse-Five or the Children's Crusade, 34; Rubens, " 'Nothing's Ever Final' ", 64.

one of the instruments that can predict the future, or possibly, as this article sets out to explore, one of the most powerful of these instruments, as law may be able to predict the future and make it happen.

1. Predicting the Future and Law

The extraordinary efforts of individuals to predict the future have been well documented throughout history and in poetry, fiction, science, and science fiction, to mention but a few forms of their expression. The history of prediction spans the past to the future, from Babylon to Wall Street, or dystopia to utopia, and is based on the necessity of foresight; a lack of foresight may result in serious trouble, as we constantly make decisions based on predictions of the paths of objects or the behaviors of other people.[39] Those with predictive powers go by many names and range from Pythia and the Oracle of Delphi,[40] to the prophets or prophecies of religions[41] and famous astrologers such as Nostradamus or the Comte de St. Germain.[42] Then there are science fiction writers, like Jules Verne and H. G. Wells, who seem—as nostalgic visionaries—to have been able to reverse the apparent linearity of time flowing from the past to the future and are credited with the prediction of amazing technologies long before they were invented.[43]

Equally, artists of all genres regularly create anticipated future scenarios, possibly united in their striving towards a *Gesamtkunstwerk* (total work of art) in spatial and temporal aspects.[44] For instance, literature is replete with examples of the anticipation of future events, like the book *The Wreck of Titan*, which told the fictitious story of a big ship colliding with an iceberg before sinking, and was published in 1898, more than a decade before the *Titanic* actually sank.[45] For visual arts, it has been observed that the "painter should not paint what he sees, but what will be seen."[46] Music has also been said to transcend time since it can be used as a means to hear the future, and it has been said that musical composers often act as futurists.[47] Additionally, there are many genius inventors who have not only come up with novel ideas but have also realized those ideas. An example is Nikola Tesla, who was said to excel "at offering compelling images of the future his inventions would deliver."[48] Recent examples of predictions by scientists that have become true are the Higgs boson (or "God particle") and the memristor, a portmanteau of memory and resistor, to inaugurate the future of computing.[49] One might also be surprised to read a warning about a Coronavirus pandemic in a scientific journal published in 2007.[50]

Since the life of Leonardo da Vinci, a genius artist and inventor, the strict separation of the arts from science and technology must be questioned. The maxim *scientia sine arte nihil est* (science without art is nothing) appears to be more and more correct, and the inverse is also true.[51] Even the etymology of the word "technology" reveals the intrinsic connection between technology, art, and science, as the Greek word *techne* refers to skills of crafts and the arts.[52] In addition, science merely means "knowledge," which is necessary for science and technology, and the relationship between science and technology is dynamic, falls between the lines of disciplinary demarcation, and, therefore, must be redefined.[53] Put briefly, history and every kind of human activity are replete with examples of the obsession with predicting the future. Even more prolific than the different professions are the creative means used to predict the future. Prophets alone used many different means to derive their prophecies: dreams, divination, ecstasy, clairvoyance, miracles, rituals, signs, wonders, and visions.[54] Many more methods for predicting the future exist: astromancy, hypnosis, pendulum reading, tasseography (reading tea leaves in a cup), the Tarot or cartomancy (fortune telling with cards), crystallomancy (reading of a crystal sphere) and the Chinese *I Ching*. The famous crystal ball alone, as a psychic tool that can be used as a time machine to glimpse the past and the future, proves that the fascination with the future

[39] Lewinsohn, Prophets and Prediction, 15.
[40] Broad, The Oracle.
[41] Miller, God's Light.
[42] Nostradamus, Les prophéties de M. Michel Nostradamus; Comte de St. Germain, Practical Astrology; Popkin, "Predicting, Prophecying, Divining and Foretelling."
[43] Unwin, "Technology and Progress in Jules Verne," 31.
[44] Trahndorff, Aesthetik oder Lehre von der Weltanschauung, 312.
[45] Robertson, The Wreck of the Titan.
[46] Valéry, Analects, 509.
[47] Houben, Die Aufhebung der Zeit; Crowdy, Hearing the Future, 1; Barry, The Music of the Future.
[48] Rhys Morus, Nikola Tesla and the Electrical Future.
[49] Alison, The Road to Discovery, 285; Strukov, "The Missing Memristor Found"; Mao, "Photonic Memristor for Future Computing."
[50] Cheng, "Severe Acute Respiratory Syndrome Coronavirus," 683.
[51] Agassi, The Very Idea of Modern Science, 108.
[52] Heidegger, Basic Writings, 318.
[53] Krohn, The Dynamics of Science and Technology, ix.
[54] Paul, Divrei Shalom, 363–398; Skinner, The Complete Magician's Tables.

has existed everywhere and at all times. Today, these tools include new technologies, which can be seen in recent efforts to use big data and AI to replicate digital crystal balls or to use "Google as God."[55]

In summary, there are a plethora of methods of forecasting, ranging from religion and the arts to magic, science, and technology. It is then important to ask about possibly the most powerful tool of prediction, which—it may be easy to guess—is "law." Indeed, the law may have the greatest inherent power to predict the future. However, to know for sure, one would need to know what that strange thing called "law" is: an art, a science, humanity, engineering, magic, or none or all of these?[56] These questions are difficult to answer. It is certain that lawyers have been compared to others in a number of professions, and it has been said that they are: doctors providing social medicine;[57] chief architects constructing the legal, political and economic order;[58] or alchemists seeking to transmute the raw into the precious.[59] Lawyers also act as philosophers and historians by virtue of the fields of legal philosophy and legal history. As prophets were also regarded as lawyers,[60] why not compare lawyers to science fiction authors writing the future itself?

The fact is that, like magicians, lawyers use rituals and perform a role in everything, notably using their modern legal magic in many things related to the future.[61] "Future law" even has a particular name in law, the *lex ferenda*, as it was called by the Romans in contrast to existing law (*lex lata*).[62] The law's entwinement with magic indeed goes back a long time.[63] The relationship between law and logic, therefore, constitutes another paradox that is indicative of the many paradoxes inherent in the law.[64] To put it simply, law embraces all sciences and activities and is a science itself. As for the future, law does not only appear in literature and science fiction[65] but has also been influenced by science fiction, as is exemplified by Isaac Asimov's *Three Laws of Robotics*.[66] However, law also imagines, creates, and is science fiction, and is perhaps legal science fiction in its own terms.[67] For example, in the context of the environmental challenges posed by the Anthropocene, an interdisciplinary project combined the collective efforts of legal scholars, writers of speculative fiction, literature scholars, and climate scientists "to anticipate what may lie ahead" by engaging in futuristic modelling and writing "judgments of, and for, the future."[68] Additionally, scientific and technological forecast models are increasingly used in legal decision-making and administrative law.[69] This inherent power of law amounts to another paradox, namely that—like science fiction—it accurately predicts the future by creating it through regulating it. This predictive power is a normative power that is also manifest in one powerful instrument of law, namely that of "legal fiction." Legal fictions connect fact and fiction, as well as past and future, by bringing about legal change and the results envisaged in the formulated goals.[70] In short, legal fictions allow us to imagine and realize laws.[71]

2. Paradoxes of Control, Self-Fulfilling Prophecies and Serendipity

The power of prediction also raises a principal question of how the formulation of a prediction can influence the later outcome. Here, the power to predict meets with a paradox called the "paradox of control." In essence, this paradox states that the more we try to control a situation, the less we are able to do so (or we are both "in control" and "not in control" at the same time).[72] Applied to forecasting, it means that we should ask whether we can still consider the anticipation of a future event to be a prediction if someone has foreknowledge of that event or if they avail themselves of the power to realize the predicted outcome. In the latter case, would it instead not be more accurate to speak of a so-called "self-fulfilling prophecy"? This term has been defined as a prophecy which "is, in the beginning, a *false* definition of the situation evoking a new behaviour which makes the

[55] Helbing, Next Civilization, 63–84.
[56] Williams, "Is Law an Art"; Howarth, "Is Law a Humanity?" 9.
[57] Lepaulle "The Function of Comparative Law," 838.
[58] Fuller, "On Teaching Law," 37.
[59] Faigman, Legal Alchemy.
[60] Shaffer, "Lawyers as Prophets."
[61] Frank, Courts on Trial, 37 et seq.
[62] Virally, "A propos de la 'lex ferenda.'"
[63] Corcos, Law and Magic.
[64] Perez, Paradoxes and Inconsistencies in the Law; Neuwirth, "Law and Magic," 140.
[65] Tranter, Living in Technical Legality, 4–9.
[66] Tranter, "The Speculative Jurisdiction"; Travis, "Interrogating Absence"; Pasquale, New Laws of Robotics, 2–4.
[67] Cowie, "Legal Fictions: A Dialogue Imagining Law," 179.
[68] Rogers, "The Anthropocene Judgments project," 1.
[69] Eisenberger, "Prognosemodelle und generelles Verwaltungshandeln," 419.
[70] Del Mar, "Legal Fictions and Legal Change"; Neuwirth, Law in the Time of Oxymora, 261.
[71] Cowie, "Legal Fictions: A Dialogue Imagining Law," 179.
[72] Streatfield, The Paradox of Control in Organizations, 7.

originally false conception come *true*."[73] However, even a fictitious conception can become true: Niklas Luhmann noted a similar paradox in the distinction in the memory between fact and fiction or news and entertainment.[74] A self-fulfilling prophecy can, therefore, also be construed as a situation of someone making a prediction and then acting upon that prediction to make it happen. Another question is about the role of confirmation bias, which is "people's tendency to search for information that supports their beliefs and ignore or distort data contradicting them."[75] Confirmation bias is reinforced in social media by the combined effects of "context blindness" and "echo chambers." Context blindness was described as "the collapse of space and time on social media—the mix of disparate social situations, friends from various social circles, and periods of life" caused by "the volume of information and the extreme and disturbing content its algorithms encourage."[76] Echo chambers refer to situations in which information is selectively filtered, leading not only to polarization but also to a situation in which we are "trapped in echo chambers of our own making."[77]

Confirmation bias can hence reinforce a belief in a prediction about the future and result in behavior that actually turns the initial belief—functioning again as a self-fulfilling prophecy—into reality. Similar self-fulfilling effects have been observed for the role of education.[78] They have also been confirmed for the power of mass media when they are called the "copycat effect" or "predictive programming."[79] In the current age of artificial intelligence, the potential power to manipulate the minds of people and achieve certain "predicted" futures has drastically increased with the combination of new technologies such as big data, algorithms, neurodevices, and machine learning, that allow for the subliminal and supraliminal manipulation of the human mind and human behavior.[80] Future innovations in this field will enhance this manipulative power to unprecedented levels. Unfortunately, even AI has already been found to face the "control paradox" in the sense that "the very technologies and practices we develop in order to enhance our control end up undermining it."[81]

The crucial question in the ability to predict the future is, therefore, the locus of control, or the amount of power humans have to bring about desired outcomes, and whether they attribute this control of events to themselves or to external factors.[82] The same paradoxical problem emerges in the term "serendipity," which is not only a matter of chance or luck. Instead, serendipity has been defined as the "gift of finding interesting things by chance."[83] This definition means that, since serendipity is a gift, one has control over the process of finding interesting things, and this no longer constitutes chance. Therefore, serendipity has rightly been defined as a capability, rather than an event, which constitutes a "combinatory play,"[84] or a distinct and identifiable capability "to recombine any number of observations and deduce 'matching pairs', or sets of events, that appear to be meaningfully related."[85] This is also in line with the original story, where serendipity was more the extraordinary observation and ability to connect the dots than a matter of chance.[86] Alternatively, it has best been described by way of paradox, namely that "serendipity is neither only a process nor only a perception, but rather has a paradoxical nature dependent on conditions and context."[87] Perhaps the same can be said about coincidences or synchronicity, namely that they may or may not have a basic cause, like the law of seriality.[88] Another possibility is that coincidences have a cause, but one that is beyond our current perception and understanding. This lack of understanding can be used as a perfect tool for manipulation, as Christopher Columbus proved in Jamaica with his "prediction" of a lunar eclipse of which he, but not the locals, had prior knowledge.[89] Today, secret algorithms have taken on this role and control information and our decisions in a paradox of the information age that consists of the fact that "[D]ata is becoming staggering in its breadth and depth, yet often the information most important to us is out of our reach, available only to insiders."[90]

[73] Merton, "The Self-Fulfilling Prophecy," 195.
[74] Luhmann, The Reality of Mass Media, 68.
[75] Peters, "What is the Function of Confirmation Bias?"
[76] Berger, Context Blindness, 63.
[77] Nguyen, "Echo Chambers and Epistemic Bubbles," 141.
[78] Chandrasegaran, "Self-Fulfilling Prophecies in Education," 8.
[79] Coleman, The Copycat Effect, 1; Neuwirth, "The Regulation of 'Fake News' in the Time of Oxymora."
[80] Neuwirth, The EU Artificial Intelligence Act, 87.
[81] Di Nucci, The Control Paradox, ix.
[82] Galvin, "Changing the Focus of Locus," 820.
[83] Klein, A Comprehensive Etymological Dictionary, 1422.
[84] Hadamard, The Psychology of Invention, 142.
[85] de Rond, "The Structure of Serendipity," 344.
[86] Busch, The Serendipity Mindset, 14.
[87] McBirnie, "Seeking Serendipity," 608.
[88] Kammerer, Das Gesetz der Serie; Jung, Synchronicity.
[89] Abbott, The Romance of Spanish History, 266–267.
[90] Pasquale, The Black Box Society, 191.

As opposed to the dichotomy between prediction and prescription, a non-binary and paradoxical perspective also seems to open the door to a new understanding of the role of law in the future and in designing the future. The mutual relation of prediction and prescription was outlined by the finding that "even simple predictions developed to anticipate the future state of affairs have an intrinsic tendency to evolve in full expectations and then in prescriptions [sic]."[91] At the same time, the inverse is also true, namely that initial prescriptions lead to duties and obligations, which eventually, and with hindsight, make a prediction become true, akin to a "self-fulfilling prophecy" in the sense of a statement about the future, which is "bound to come true as a result of its being made."[92]

Lastly, the same paradoxical question arises in the context of the concept of "science fiction," which qualifies as an oxymoron because it "invokes and delivers dichotomies, insoluble dilemmas, deceptive solutions."[93] As another link between law and science fiction, even "legal fiction" has, not coincidentally, been described as an oxymoron.[94] Therefore, to reach an interim conclusion, the question of the prediction of the future is closely tied to the mysterious workings of oxymora and paradoxes, otherwise called "essentially oxymoronic concepts," and to their relationship with the phenomenon of time witnessed in the global trend of their rise in life and law.

3. The Dawn of the Age of Paradox, the Time of Oxymora, and the Acceleration of Time

As far as the recent rise in oxymora and paradoxes is concerned, is it helpful to cite, first, a prediction about the future by James N. Rosenau, who wrote in 1995 that global governance in the twenty-first century will be compelled "to discern powerful tensions, profound contradictions, and perplexing paradoxes."[95] In the same year, Charles Handy referred to the coming time as the Age of Paradox and urged the need "to find ways to make sense of the paradoxes."[96] Since then, contradictions, dilemmas and paradoxes have further proliferated, often leaving us with a sense of disorientation, disinformation or discomfort that has culminated in a sentiment and rhetoric of post-truth.[97] Lastly, these paradoxes and oxymora, which were used in the arts and mysticism for their predictive power over the ages, have now begun to erode the fragile foundations of binary logic on which the contemporary pillars of science and law were erected. In this last step, this trend has earned the present era the name "Time of Oxymora."[98]

Confirming the correctness of denoting the present era as the Age of Paradox is, first, the way in which humanity tends to address the most fundamental global problems, such as the recent global pandemic, climate change, or international conflicts. This shares the paradox of our times, which was defined by David Held as follows:

> The paradox of our times can be stated simply: the collective issues we must grapple with are increasingly global and, yet, the means for addressing these are national and local, weak and incomplete.[99]

The apparent contradiction between the global nature of contemporary threats on the one hand and the lack of global cooperation on the other may be explained by another paradox, the paradox between technological and scientific progress on the one hand and the growing deficit of social knowledge on the other. This has been framed as follows:

> Our deficit in social knowledge seems to void at every step our progress in physical knowledge. The surplus in wealth accumulating to the human race through applied natural science is virtually canceled by the costs of armaments and war.[100]

The wide use of paradoxes to describe the present era is also matched by the increasing use of oxymora. An excellent example is provided in the concept of "sustainable development," as enshrined in the Sustainable Development Goals, which has also been described as an oxymoron that juxtaposes "change" and "not-change" and thereby challenges the idea of the linear perception of the flow of time.[101]

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[91] Castelfranchi, "The Prescriptive Destiny of Predictive Attitudes, 222.
[92] Thompson, The Oxford Dictionary, 826.
[93] Csicsery-Ronay, The Seven Beauties of Science Fiction, 8.
[94] Supreme Court of Arkansas, *Springdale Board of Education v. Bowman*, 294 Ark. 66 (1987), 74; Von Bülow, "Civilprozessualische Fiktionen und Wahrheiten," 7.
[95] Rosenau, "Governance in the 21st Century," 13.
[96] Handy, The Age of Paradox, xi.
[97] McComiskey, Post-Truth Rhetoric and Composition.
[98] Neuwirth, Law in the Time of Oxymora.
[99] Held, Cosmopolitanism, 143.
[100] Allport, The Nature of Prejudice, xiii.
[101] Redclift, "Sustainable Development (1987–2005)."

It is precisely in the context of change, as the only apparent constant in life, that some of the key causes of the proliferation of paradoxes and oxymora can be discerned. The reason is that change, notably when measured in time, has, in the present era, been found to accelerate drastically, with everything changing faster.[102] Technological innovations, in particular, have been cited as the cause of the acceleration, which has also revolutionized the space-time regime by shrinking space and time.[103] In such an environment, one of the advantages of paradoxes and oxymora is that they manage to describe change better, as is usually perceived by oscillations between two opposites. For instance, not only was "space-time" said to qualify as an oxymoron,[104] but the equally oxymoronic concept of "permanent present" was also used to describe the certain acceleration that characterizes the present time.[105] The same trend is captured by the notion of the Anthropocene, which, in the context of the change in Earth's system, is also called "the great acceleration."[106]

Interestingly, the Anthropocene also gives rise to a seeming paradox related to control, namely that it was first described as "an era in which the human impact on the Earth System has become a recognizable force."[107] At the same time as the impact of humans on the earth is increasing, a paradoxical flipside has been found to exist, namely that "the late modern lifeworld is becoming increasingly uncontrollable, unpredictable, and uncertain."[108] Equally, other popular concepts such as posthumanism predict various future scenarios involving a change or shrinking in the perception of space-time, which could take the form of "stretching/shrinking space-time, engineering more dimensions of space-time, manipulating different multiverses, or something else which is too far beyond our current scientific understanding."[109] Similarly, the kind of "end-times thinking," expressed in various titles starting with "end of…" such as "end of history" or "end of time,"[110] appear to confirm the perceived trend of an acceleration, stretching or shrinking of time leading eventually to its disappearance. The perceived acceleration of time and change, as expressed and caused by paradoxes and oxymora, has also been noted to pose a serious challenge to law and the rule of law.[111] More broadly, these challenges are captured by the oxymora "alternative facts" or "fake news," which together create the sensation of living in a "post-truth" world.[112] Generally, numerous "post-concepts," like postmodernism or posthumanism, have been found to be the result of contradictions; posthumanism was found to propose an "oxymoron: that of transcendent immanence" as another indicator of a change in the perception of time.[113]

In the legal realm, the gradual shift from exclusively binary to more fuzzy logic, as indicated by trends in language and technology, also poses serious challenges to legal reasoning that are primarily manifested in the inadequacy of dualistic reasoning and binary logic. There are numerous examples showing that a binary construction of law cannot deal with most of today's complex, cross-cutting, and rapidly evolving phenomena of an oxymoronic nature. For instance, the binary construction of gender under the oxymoron of "gender equality" (instead of gender equity) was recently abandoned in several jurisdictions in favor of a third gender.[114] Similar limitations inherent in binary concepts of regulation are found in the context of technology and innovation generally.[115] Not surprisingly, many novel industries and technologies are now qualified as oxymora, such as "artificial intelligence," "virtual reality," or "synthetic biology."[116] There are many more such apparently irresolvable conflicts between treaties or in other areas of law caused by phenomena construed as oxymora or paradoxes, and these have led to an increase in the number of urgent calls for the introduction of a new logic in future law.[117] Such a new logic needs to reconsider the nature of time, traditionally divided between "past" and "future," in law. The reason is that if the law wants to play an important role in the future and address the wider challenges related to planetary problems, efforts to plan for and predict the future must also be undertaken in law.

In the endeavor of law to predict the future, paradoxes and oxymora, like that of science fiction or space-time, play an important role. This role is rooted in their transcending effect on the limitations inherent in the traditional mode of dualistic thinking or

[102] Gleick, Faster, 6.
[103] Rosa, Social Acceleration, 97–99.
[104] Mazur, The Clock Mirage, 115.
[105] Ancori, The Carousel of Time, ix.
[106] Steffen, "The Trajectory of the Anthropocene," 82.
[107] Mauser, "Global Change Research in the Anthropocene," 3.
[108] Rosa, The Uncontrollability of the World, 110.
[109] Baofu, The Future of Post-Human Space-Time, 164.
[110] Fukuyama, The End of History; Horowitz, The End of Time.
[111] Neuwirth, Law in the Time of Oxymora, 156.
[112] Dalkir, Navigating Fake News, xxiv.
[113] Carpi, Law and Culture, 8.
[114] Schotel, "Towards Categorical Visibility?"
[115] Eisenberger, Innovation im Recht, 156–157.
[116] Neuwirth, "The 'Letter' and 'Spirit' of Comparative Law," 11–12.
[117] Dewey, "Logical Method and Law," 27; Jeutner, Irresolvable Norm Conflicts, 151; Neuwirth, Law in the Time of Oxymora, 234 and 255; Glenn, Law and the New Logics.

the use of binary logic. Transcending various opposites, such as past and future, can, thus, help to create a new perspective on reality and open up new ways of organizing the "eternal present" beyond the dichotomy of past and future. This possibility was attempted by an experiment of legal science fiction aimed at imagining and drawing up utopian and dystopian scenarios for the future of the World Trade Organization. Based on the existing body of scientific literature and related reports, this experiment revealed that, for most serious global problems, the causes are well-known, and the cures are widely available but are neglected or deliberately ignored.[118] This also shows that the difference between utopian, or desirable, and dystopian, or undesirable, outcomes lie mainly in perception and cognition. This seems to be confirmed by the observation that, from the "perspective of the brain, there's a thin line between a good decision and a bad decision."[119] The obvious limitations in such dualities or dichotomies ascribed to the world of the mind may provide a source of hope, as was aptly framed by Friedrich Hölderlin in the paradox that "where danger threatens That which saves from it also grows."[120]

Therefore, the apparent contradictions inherent in oxymora and paradoxes may indicate that the human mind and cognition are both at the root of all problems and are also the ultimate source for the solution of all problems. This is also reflected in the paradoxical nature of the brain itself.[121] A paradox has also been reported for medicine in relation to the difference between poison and cure.[122] Applied to law, cognitive evolution theory also acknowledges the role of the mind by observing that major reforms can only materialize once cognitive changes have taken place.[123] History, too, proves that cognition has changed, and new organs of cognition have arisen in the course of evolution.[124] The idea that cognition may not only solve these problems but also holds the key to the mysteries of the future can also be derived from language and its creative power. We know this from the example of metaphors that represent the power of language to influence our thoughts and actions.[125] In so-called "engineering" or "machine" metaphors, language has also been found to influence and limit the design of technologies.[126] A recent study suggested that reality itself may be constructed from our consciousness.[127] Perhaps it is a mysterious form of collective human cognition that creates the reality that we deem objective. This assumption would draw special attention to law, which also appears to have its primary origin in the mind.[128]

As regards the overall creative power of the human mind, the power of fiction has been singled out as "the most potent force on earth, surpassing even wayward asteroids and natural selection."[129] This means that it is now also time to direct our attention to the future and seek a new understanding of space-time in general. It was noted that the analysis of classical paradoxes and problems constitutes "an important preliminary to thinking about space-time physics."[130] The quest for such a new understanding of time also goes by the term "futures thinking," which, it is said, begins "with the current state and uses foresight to lay down a path to meet estimated, yet unknown, future needs."[131] The main verbal expression of this understanding may start with oxymora and paradoxes, which can be said to constitute the language of future cognition and of the future. This future cognition will also determine the future nature and function of law, and that is why it is useful to cast light on the changing narrative of space-time, too.[132]

4. Science Fiction as an Oxymoron and the Narrative of Space-Time

The first key step, if future law is to be successful in tackling the challenges posed by technology and language as they surface in paradoxes and oxymora, is a sound scientific inquiry into the phenomena of the dimension of time as a unit to measure change.[133] This is because time is itself linked in mysterious ways with oxymora and paradoxes. For instance, it has been said that the common language that distinguishes the past from the future may not be apt to give a full understanding of the complex

[118] Neuwirth, "GAIA 2048 – A 'Glocal Agency in Anthropocene'."
[119] Lehrer, How We Decide, xiv.
[120] Hölderlin, Hyperion and Selected Poems, 245.
[121] Kapur, The Paradoxical Brain.
[122] Timbrell, The Poison Paradox, 209 and 250.
[123] Lang, "Reflecting on 'Linkage,' " 529; Adler, World Ordering, 137.
[124] Zajonc, Catching the Light, 184–185.
[125] Lakoff, Metaphors We Live By, 3.
[126] Boudry, "The Mismeasure of Machine," 667–668
[127] Podolskiy, "Parisi-Sourlas-like Dimensional Reduction," 3; Ratner, "Is Human Consciousness Creating Reality?"
[128] Neuwirth, "Law as Mnemonics," 144.
[129] Harari, Homo Deus, 152 and 156.
[130] Le Poidevin, Travels in Four Dimensions, xi-xii.
[131] Schreiber, "Introduction to Futures Thinking in Organizations," 3.
[132] Neuwirth, Law in the Time of Oxymora, 30 and 251.
[133] Aristotle, The Physics, 238–275.

nature of time.[134] It has also been asked: "Why do we remember the past but not the future?"[135] This begs the question of whether oxymoronic language would be better equipped to cast light on the perception and nature of time. The notion of "space-time," or a "four-dimensional space-time continuum," as Einstein called it,[136] at least seems to suggest that it would.

Time is also one of the key aspects of oxymora and paradoxes. It is rooted in inherent contradiction or in the apparent cognitive impossibility for the mind to perceive that terms, phenomena or ideas with opposite meanings can have meaning, take place or be convincing at the same time in the same place. This also becomes evident in law and legal reasoning, where it would be difficult to conceive of a judge finding an accused "guilty and innocent" at the same time, even though such a scenario often exists in reality.[137] On the other hand, in the lawyer's paradox highlighted by a hypothetical case resulting in a circular argument and logical dilemma for the court, the solution presented by the judges was to use time by leaving the question undecided and deferring the matter to the future or a "very distant day."[138] Perhaps it was this feature of time as a solution to paradoxical problems that William Shakespeare had in mind when he wrote: "This was some time a paradox, but now the time gives it proof."[139] It is also reflected in Oscar Wilde's words: "Well, the way of paradoxes is the way of truth."[140]

With regard to time, which is dominated by the assumption of a unilinear flow from the past to the future,[141] paradoxes and oxymora indicate the possibility of a new perception of time and space. This is a perception of time flowing in two opposite directions at the same time and even a reversal of the causal order, meaning that "the observed causal order of space-time might not be a fundamental property of nature."[142] As another paradox derived from the spatial metaphor of events in time, a fundamental asymmetry in the psychological distance of past and future events has been observed in which "future events are psychologically closer to the present than are past events of equivalent objective distance."[143] This observation reflects Zeno's paradoxes about time and motion.[144] Poetry pays a special tribute to this paradox in the form of the *hysteron proteron*, which reverses the presentation of order in time.[145] This phenomenon is also observed in life, with some languages and related gestures indicating that the future is not ahead but behind and that the past is in front.[146] Finally, science fiction is also obsessed with the idea of time and, more often, with the possibility or technology of time travel. It is not strange, but it should be expected that the idea of time travel is also replete with paradoxes (e.g., the grandfather paradox), which gives rise to the conclusion that it is not an impossibility but a temporary oddity.[147] Perhaps the long-predicted "end of history" is really the end of time (as we know it).

A gradual change in the perception of time has already been indicated and is supported by numerous reports observing a perceived acceleration of the pace of change.[148] As regards language, Italo Calvino called long novels a contradiction and wrote that "the dimension of time has been shattered."[149] As regards technology, the machine age's obsession with "fast" should mean that humans have more time, but paradoxically the opposite sentiment, namely that time is simultaneously accelerating and shrinking, has been found to prevail.[150] In summary, time has been found to be accelerating "in several ways in our everyday lives and also at the economic, scientific, technological, social, political, and cultural level, and in the arts," all of which have been attributed to the development of science and technology.[151] Whether this is felt or real, if time or how it is perceived continues to accelerate, it might one day disappear, and humans may thenceforth live in a world without time.[152] Perhaps the so-called "Google effect" on memory, which is said to lower the rates of recall of information, is also foreshadowing a future

[134] Rovelli, The Order of Time, 111; 't Hooft, "Time, the Arrow of Time," 3.
[135] Hawking, A Brief History of Time, 148.
[136] Einstein, Relativity, 379.
[137] Markle, "The Misunderstood Alford Plea."
[138] Gellius, The Attic Nights, 305–307.
[139] Shakespeare, "Hamlet," 62.
[140] Wilde, The Picture of Dorian Gray, 58.
[141] Gold, "Why Time Flows."
[142] Oreshkov, "Quantum Correlations With No Causal Order."
[143] Caruso, "The Temporal Doppler Effect," 530.
[144] Mazur, Zeno's Paradox.
[145] Minchin, "How Homeric Is 'Hysteron Proteron?'," 644.
[146] Núñez, "With the Future Behind Them."
[147] Lewis, "The Paradoxes of Time Travel."
[148] Gleick, Faster, 6; Nora, "Between Memory and History," 15.
[149] Calvino, If on a Winter's Night, 8.
[150] Blyth, Enjoy Time, 69.
[151] Santos, Time, Progress, Growth and Technology, 144.
[152] Yourgrau, A World Without Time.

without time and memory (as we know it).[153] Interestingly, a boom in electronic media and digitalization was blamed for an alleged disappearance of memory.[154]

In short, the mystery of time and the key to unlocking it seem veiled by numerous oxymora and paradoxes. Alternatively, as Albert Einstein once observed, the "distinction between past, present, and future is only an illusion, even if a stubborn one."[155] Perhaps it is time to get rid of the illusion and change the narrative of time and space.[156] It is argued that the possibility of the oddity of time travel or of the future and the past being linked in a kind of oxymoronic "eternal present"[157] still needs to reach our consciousness but already provides a working definition for the organization of the future and, notably, for the future of law. The reason for this is that the future and the future of law are closely related. Law may well be, at present, the best magical tool, a kind of "collective crystal ball" that humans can use to predict the future by actually creating or regulating it as a self-fulfilling prophecy. The inverse may also be true, namely that humanity itself is a collective genetic code, one that was programmed at the origin of creation and is poised to reveal and achieve a certain outcome.

5. Cognitive Revolutions and Futures Thinking

Like the history of law, the future of law must be based on sound scientific knowledge and the most accurate and complete account possible of human nature, the senses and the human mind.[158] For law to meet this challenge, a new mode of cognition, or a cognitive revolution, is required. Current changes in language and technologies suggest that the future change in cognition is likely to, and needs to, involve a kind of thinking that is simply described as oxymoronic thinking and polyvalent logic. This can be compared to the complementation of dialectics with "dialetheism," the latter meaning learning to live with contradictions and accepting that there can be contradictions that are true (while others may be false).[159]

So far, humans have primarily focused on the external effects of new technologies, as Jean Baudrillard showed with his view of technologies as extensions of the human body.[160] Now, with technologies like AI, a point in evolution has been reached at which humans are ready to artificially reproduce not only the physical body but also the intellectual sphere of the mind.[161] Having reached this point, which is close to the active design of the future, humans also need to study cognition to internalize the lessons learned from these technological extensions.[162] In the field of law, the need for cognitive change has been detected by noting the increasing uncertainty and serious problems for the integrity of the law and the rule of law that must be addressed if it is to keep pace with the rapid changes in its context.[163] In contemporary terminology, this problem is addressed by "future-proofing" legislation.[164] In this regard, the shrinking of time will also mean that the time span between the occurrence of a cause and the manifestation of its effect may shrink, with a consequent reduction in the duration of the time needed for an effect to materialize from a cause. This effect is best described as "instant karma," a notion of fast change first popularized by John Lennon,[165] that describes instances where actions cause an immediate effect. Instant karma may today still constitute an oxymoron but may tomorrow force a new understanding of human relations onto every individual. Instant karma is capable of transforming morality from an ideal—through the possibility of individual verification and cognitive evaluation—to a useful behavioral tool, like intuition, that prevents us from behavior causing harm. Induced by new technologies, even harm will be defined and felt differently; in a way that includes not only physical and psychological but also wider societal harms.[166]

The possible dawning of this sensation is illustrated by mirror-touch synesthesia, a condition in which "a person watching another individual being touched feels a tactile sensation on his or her own body,"[167] which will allow humans to recognize the golden rule and finally realize that harm caused to others as harm done to themselves. Synesthesia is also considered to be a hint of future sensibilities.[168] It already holds another mysterious key to the future of the perception of time in the form of time-

[153] Sparrow, "Google Effects on Memory," 776.
[154] Zierold, "Memory and Media Cultures," 399.
[155] Einstein, Michele Besso [quoted in Viggo Hansen, "Spacetime and Becoming," 136].
[156] Gomel, Narrative Space and Time.
[157] Mileur, Literary Revisionism and the Burden of Modernity, 163.
[158] Bozzo-Rey, "Indirect Legislation," 106.
[159] Priest, "Dialectic and Dialetheic," 388.
[160] Baudrillard, Symbolic Exchange and Death, 178; De Silva, "End-of-Life Legislation in the United States," 27.
[161] Gentili, "The Human Sensory System," 2137.
[162] Stanley Alder, The Fifth Dimension, 90.
[163] Johnson, "Mind, Metaphor, Law," 845.
[164] Chander, "Future-Proofing Law"; Ranchordás, "Future-Proofing Legislation for the Digital Age."
[165] Gray, Practical Miracles for Mars & Venus, 99.
[166] Neuwirth, The EU Artificial Intelligence Act.
[167] VandenBos, APA Dictionary of Psychology, 1060.
[168] Dann, Bright Colors Falsely Seen, 36.

space synesthesia, which denotes a particular "condition in which units of time, such as months of the year, are associated with specific locations in space."[169] In a seeming concurrence between fiction and science, the condition was described as follows:

> In time-space synesthesia, a visual experience can be triggered by thinking about time. Like Kurt Vonnegut's Tralfamadorians in Slaughterhouse-Five, some people can literally see time. For example, some say they view a year's time like a circular track with them standing in the middle. They can see the days and months unfolding all at once.[170]

Interestingly, the perception of time units by synesthetes has been observed to be spatially linked by forming oval or circular, not linear, shapes.[171] These observations may point to circular as opposed to linear aspects of time, which need to be reconciled in the context of justice.[172] It has also been found that time-space synesthesia marks a cognitive advantage.[173] It is important to note the finding that time-space synesthesia is not only inborn but can also be acquired and even induced by psychedelic drugs.[174] Not coincidentally, perhaps, separate experiments with psychedelic drugs observed a transcendence of the perception of time and space.[175] Finally, it has been concluded from various experiments that "knowledge gained from research on synesthesia is not confined to the understanding of synesthesia per se; rather, it can be used to constrain psychological theories in other areas."[176] These areas are not limited to psychology or neuroscience but also include language and law as well as future studies, which is why oxymora have been paraphrased as "verbal LSD", meaning that words can have a mind-expanding effect, and as important rhetorical figures of the "language of the future."[177] Synesthesia was also found to provide a better understanding of the processes underlying the perception of time in the general population.[178] In summary, these research findings seem to be aligned with findings in literature and physics, confirming that humanity might literally and metaphorically be running "out of time."[179] Synesthetic sensations, together with other discoveries, will eventually reinforce the understanding that humanity, "in coming of age, has begun to be subject to the necessity and to feel the urgency of forming one single body coextensive with itself."[180]

Even today, the instant effect of the shrinking of time can be seen in law enforcement, in the form of increased automation of rights, such as the instant automatic removal of content that infringes intellectual property (digital rights management) or of hate speech and fake news, by means referred to as "algorithmic content moderation" (an obvious euphemism for censorship).[181] These automated forms of law enforcement, without human agency involved, already pose a serious threat to fundamental legal principles, such as the presumption of innocence, the right to be heard, and the right to a fair trial. Already, new brain-related technologies, such as those used to assess guilt, are testing the limits of judicial systems and the common sense of justice.[182] In a way that is reminiscent of the movie *Minority Report*, the use of AI, machine learning, algorithms, and data- and code-driven regulation will carry these developments further by allowing predictive methods of policing and law enforcement, which will threaten or completely erode the rule of law as we know it.[183]

Completing the self-fulfilling prophecy, these predictive methods will be complemented by subtle preventive methods made possible by "neurolaw" (i.e., the merger between law, neuroscience and other technologies, including those of AI), which will allow more subtle forms of subliminal and supraliminal manipulation of human thoughts and behavior.[184] The effectiveness of subliminal messages as hidden persuaders was scientifically proven decades ago, and such messages were used not only in subliminal advertising but also in electoral interventions and experiments with a so-called "electronic conscience" (namely, subliminal messages encoded in background music played in shops to prevent shoplifting).[185] The discussion of nudging to

[169] Smilek, "Ovals of Time," 507.
[170] Macknik, Sleights of Mind, 103.
[171] Smilek, "Ovals of Time," 507.
[172] Davidović, "Reconciling Complexities of Time in Criminal Justice and Transitional Justice," 960.
[173] Hale, "Better Together?"
[174] Brogaard, "Serotonergic Hyperactivity as a Potential Factor in Developmental."
[175] Pahnke, "Implications of LSD and Experimental Mysticism," 179.
[176] Cohen Kadosh, "Can Synaesthesia Research Inform Cognitive Science?," 183.
[177] Neuwirth, Law in the Time of Oxymora, 239 and 250.
[178] Cohen Kadosh, "Synesthesia," 129.
[179] Baron, Out of Time.
[180] Teilhard de Chardin, Activation of Energy, 15.
[181] Finck, "Copyright Law on Blockchains"; Gorwa, "Algorithmic Content Moderation"; Castets-Renard, "Algorithmic Content Moderation on Social Media"; Cobbe, "Algorithmic Censorship by Social Platforms."
[182] Stronge, "Absolute Truth or Deus Ex Machina."
[183] Hildebrandt, "Algorithmic Regulation and the Rule of Law; Zalnieriute, "The Rule of Law and Automation of Government Decision-Making."
[184] Neuwirth, The EU Artificial Intelligence Act, 87.
[185] Packard, The Hidden Persuaders; Goodkin, "The Subconscious Taken Captive," 1077.

complement soft and hard law testifies to the effectiveness of such messages, especially when one considers that only 5% of our cognitive functions are conscious, while the remaining 95% are beyond our awareness but still exert an important influence on our lives.[186] In line with the established oddity of a reversal of the temporal order, the possibility of enforcing the law and convicting the accused before a crime has been committed or even attempted may soon become a reality.

In summary, these and other developments mean a drastic paradigm shift, prompted by a change in the perception of time, which warrants the quest for entirely new conceptual, theoretical and practical foundations for the rule of law in the future. Obviously, the future rule of law must be global, as indicated by the paradox of our times. Therefore, the quest must be based on an optimal combination of the latest scientific findings about humans and the world, both internally and externally. At present, it is a shame that, with all their sophisticated technologies and forensic tools, legal systems around the world continue to convict, incarcerate and—where the abhorrent institution of the death penalty exists—even execute the innocent on the basis of outdated methods such as police line-ups, which are known to be prone to error.[187]

In this regard, important lessons can be learned from the study of the senses in law, known as "legal synesthesia."[188] The reason is that synesthesia is not only a real physical condition but also metaphorically indicates a "lost sense,"[189] one likely to be trained and controlled in the future.[190] This sense will allow human perception to discover a new, possibly deeper, reality and prepare the way for a new way of thinking akin to intuition, for which—at present—there are no adequate words other than oxymora.[191] The cognitive paradigm shift can be compared to a transition from a three- to a four-dimensional world, one which is already indicated by the evolution of cinema from silent to three- and four-dimensional movies and the use of technologies termed "augmented reality." The new dimension will emerge from the transcendence of duality, which has been described as follows:

> Duality is the condition of our perception of the phenomenal (three-dimensional) world; it is the instrument of our perception of phenomena. But when we come to the perception of the noumenal world (or the world of many dimensions), this duality begins to stand in our way, to become an obstacle to knowledge.[192]

Once this obstacle has been cleared, it will present many phenomena deemed to be fundamental and immutable, such as the individual–collective, or even the life–death, dichotomy, in a completely different light.[193] The evolution of the senses will follow, and their role has been highlighted in connection with the perception of the acceleration, shrinking and possible disappearance of time. In connection with the senses, time has been called a "common sensible" or the only universal sensation perceived by all the senses individually and jointly.[194] This cognitive revolution will provide law and, notably, the rule of law with a new reality and unprecedented possibilities for deriving a new legitimacy based on a novel global social contract or, in fact, a "collective consensus of the senses" in a literal sense. In this process, the law will assume internally the role that the Internet has externally, namely that of providing a means of communication between every individual on earth and between all of them collectively.

6. Future Law as Legal Science Fiction

The key step in unlocking a future legal order is overcoming the dominant form of dual reasoning. Dualism is a cognitive mode of thinking that has been used in all cultures across time and space to "identify and make meaning of the world through 'binary oppositions.' "[195] In the form of contestation and competition, it is also prevalent in most contemporary activities, from education and games to sport and war.[196] Most of all, dualism traditionally had a dominant role in law, where it has been aptly described as follows:

[186] Mlodinov, Subliminal, 34.
[187] Garrett, Convicting the Innocent, 50; Cole, "Turning the Corner on Mass Incarceration," 39.
[188] Neuwirth, "Legal Semiotics and Synaesthesia."
[189] van Campen, The Hidden Sense, 158.
[190] Proulx, "Synthetic Synaesthesia and Sensory Substitution."
[191] Stewart, "Stimulating Intuitive Thinking through Problem Solving," 175; Neuwirth, Law in the Time of Oxymora, 171–174.
[192] Ouspensky, Tertium Organum, 265–266.
[193] Patterson, A New Heaven and a New Earth or the Way to Life Eternal, 90–91; Neuwirth, Law in the Time of Oxymora, 257–262.
[194] Marks, The Unity of the Senses, 32.
[195] Webb, "Dualism," 702.
[196] Ong, Fighting for Life, 15.

> For the lawyer's purpose every situation which confronts him is dealt with as falling into one or the other of two categories which are apparently supposed to be mutually exclusive and separated by a sharp boundary. Either this is a battery or not a battery, a trespass or not a trespass, etc.[197]

Oxymora and paradoxes in general, and legal examples of these, such as "soft law" (which is considered both legally binding and not binding),[198] however, challenge this strictly dualistic form of reasoning in law. In the same way, they challenge the dualistic perception of the past and future in time. This may be why the future legal order will be oxymoronic and why humans will need to be able to decipher and make sense of paradoxes and oxymora to use them "to shape a better destiny."[199] It may also explain the visionary characterization of the "nomos" formulated by Robert M. Cover, when he writes that the nomos is constantly created and maintained by "a world of right and wrong, of lawful and unlawful, of valid and void" (and not by a world of "right *or* wrong, of lawful *or* unlawful, of "valid *or* void").[200]

However, such a cognitive revolution will not take place abruptly, and until then, oxymora and paradoxes will refer to increasingly complex and seemingly contradictory phenomena and thereby bring about subtle changes step by step. After all, it has been said that "we cannot shake off our dualistic way of thinking because it is innate and modular, and innate modular beliefs are extremely hard to shift."[201] Still, this does not mean that we need to wait passively; instead, we can and must actively prepare for the perception of a new dimension of reality in law too. To this end, there are a few principles that need to be observed in a broader, globally-led debate about the future global legal order in the Anthropocene.

First, a truly global debate must be created, one that is based simultaneously on a common language and a consensus of the senses and has adequate institutions providing the necessary platform. It must be an inclusive and transdisciplinary debate in which many voices, including dissenting ones, are patiently heard and constructively discussed. The current online tweeting culture that allows a maximum of 280 characters is not such a debate but instead constitutes mere intellectual exhibitionism and an example of people talking past, instead of to, each other. The debate must also be held for existing and future technologies: their purpose and effect on both the external and internal aspects of life must be critically studied together. There is a need for extreme caution so that technology is not mistaken as the panacea and solution to all problems or a kind of *Deus ex machina* (God from the machine), as even intelligent and learning machines tend to make the same errors humans make.[202] Belief in technology should not replace belief in religion, but it should renew the understanding of the psychological and cognitive role of religion in evolution.

In this debate, any value judgments should be avoided, especially with regard to different religions and to the existence of one or more different gods. Here, due consideration should be given to the belief to which Arnold Toynbee said he had returned, namely that religion holds the key to the mystery of existence, but this key is not exclusively in the hands of a particular religion.[203] There is also a need not to treat religion and science as mutually exclusive but to apply a form of "epistemological pluralism," which will be aided by polyvalent logic and paradoxical thinking.[204]

The need for more inclusive thinking also applies to law, where the dichotomy between natural and positive law is falsely conceived because, considering epistemological pluralism, there has to be no contradiction if a law is derived at the same time "from nature, from human reason, or from the will of God."[205] Therefore, future law needs to be based on a scientific and collective understanding of individuals' human nature. It must be understood that the divine and the human are not an impossible contradiction; as Mircea Eliade observed, human existence takes place simultaneously upon two parallel planes, "the temporal, of change and of illusion, and that of eternity, of substance and of reality."[206]

The same applies to different constitutional, political and economic systems, and especially to essentially contested concepts like democracy, capitalism, communism, and freedom. In this context, the current debates and, in particular, media reports, the invocation and discussion of these concepts are predominantly based on ignorance, prejudice and bias. So far, no system has achieved any of these concepts in an ideal format, and none is likely to do so in isolation or without full cooperation and a

[197] Cook, " 'Substance' and 'Procedure' in the Conflict of Laws," 333.
[198] Murphy, The Evolving Dimensions of International Law, 20.
[199] Handy, The Age of Paradox, xi.
[200] Cover, "The Supreme Court, 1982 Term," 4.
[201] Segal, "Poverty of Stimulus Arguments," 101.
[202] Chavarriaga, "Errare machinale est."
[203] Radhakrishnan, Religion and Culture, 49.
[204] Verhagen, Religion and Psychiatry, 5–6.
[205] Kelsen, General Theory of Law and State, 8.
[206] Eliade, Patterns in Comparative Religion, 460.

global "collective consensus of the senses." This will also require a profound understanding of human nature, based on an adequate social science, which, it is said, can predict even the future of democracy.[207] The same goes at the individual level, where all forms of discrimination originate from a misunderstanding of the paradox of the universal dignity of humans, which is rooted precisely in the uniqueness of every individual.

Overall, the need is to understand the contradictions reflected in oxymora and paradoxes, which requires the extension of binary forms of logic to polyvalent ones or a move from dialectics to dialetheism. Only this will allow for all these complex issues to be seen in a new light, as exemplified by the comprehensive meaning of "serendipity," which is simultaneously an event and a capability, with the capability being derived from the recombination of a number of observations. Last but not least, these are but some of the cornerstones and principal traits of a coming future legal order, which will only begin to make sense when the senses are ready to perceive and the mind to imagine it.

Inceptive Conclusion

The thing that hath been, it is that which shall be;
and that which is done is that which shall be done:
and there is no new thing under the sun.
(Ecclesiastes 1:9)

The human obsession with the prediction of future events is often a matter of survival and has been recorded in numerous forms at many times and in many places. As one important form of this obsession, science fiction has been credited with extraordinary predictive powers, which have often been confirmed by later developments. Equally, science and technology have predicted many future developments and have also realized them. Fiction and the arts generally have contributed greatly to this process, as "fictional models play an explanatory role in science" and help by revealing "truths that reality obscures."[208] All of these examples share the important role played by language in providing a glimpse into the deeper and mysterious workings of the brain as a tool to perceive, alter and possibly "realities" in the past, present and future. However, the greatest predictive power of them all is vested, it was argued here, in law. Law, when construed in the right way, may be like a magical tool able to predict the future by creating it through regulating it. For instance, lawmakers could agree that there would be no more income tax next year and, magically, income tax would disappear from next year onwards.

Fundamentally, the law's predictive powers, like those of oracles, are not solely rooted in the psychic forecasting of the future. They are also vested in the persuasive power to unite, find agreement and create a consensus among all members of society to bring about the changes that transform initial predictions from a vision to reality. So far, the quest for law's transformative power has been conducted largely in the wrong place and has overestimated the power of technology to provide humans with the future they desire, as, paradoxically, new technologies are regularly hyped and, therefore, overestimated at first, and underestimated in the long run.[209] Instead, the external manifestation of technology and language, disguised in oxymora and paradoxes, needs to be used as a key to the inner workings of the human mind. The reason for this is that it is from the black box of the mind, and not from computer algorithms or AI, that new sensory organs of perception, new modes of cognition and eventually, a future law will emerge. This will be aided and accelerated by the emergence of the new dimension of time, as the fourth dimension in the space-time continuum, where science fiction will no longer be an oxymoron because humans will realize that time (as it is known now) does not exist and that there is nothing new under the sun.

[207] Faris, The Nature of Human Nature, 313.
[208] West, To See the Dream, 39; Bokulich, "Fiction As a Vehicle for Truth," 260.
[209] Davenport, The AI Advantage, 7.

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