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# Deadlines as Behavior in Diplomacy and International Law

Jean Galbraith

*University of Pennsylvania Law School, [jwg78@crab.rutgers.edu](mailto:jwg78@crab.rutgers.edu)*

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## DEADLINES AS BEHAVIOR IN DIPLOMACY AND INTERNATIONAL LAW

Jean Galbraith\*

In the last fifty years, empirical work in economics, psychology, sociology and other fields has produced increasingly powerful accounts of human behavior. This work is clearly important at the individual level and often at the group level, but what – if anything – does it offer for international affairs? Scholars grappling with this question must consider two issues: relevance and proof. Relevance goes to the degree to which insights developed in other settings actually explain how international affairs are conducted. The issue of proof requires us to determine how confident we are about relevance or irrelevance. How much weight do we assign to the strength of the underlying research, to deduction, to analogy, or to other evidence of a connection?

Different fields dealing with international affairs have taken different approaches. Diplomatic studies lies at one end of the spectrum. As a skim through the classic texts demonstrates, this field presumes that individual behavior matters to international affairs and has further embraced the relevance of research on individual and group behavior based on fairly low levels of proof. Fred Iklé's 1964 classic on *How Nations Negotiate*, for example, contained an entire chapter on "Personalities" and took into account existing psychological research on the bargaining process.<sup>1</sup> Subsequent scholars of diplomacy have similarly drawn on insights from empirical research conducted in other contexts.<sup>2</sup> They acknowledge uncertainty about relevance, but nonetheless think it worthy of inclusion among the many lenses applied to the field. As William Zartman and Maureen Berman put it, "one might well wonder about the value or

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\* Assistant Professor, University of Pennsylvania Law School. I thank Anne van Aaken, Tomer Broude, Harlan Cohen, Kristina Daugirdas, Meg deGuzman, Chuck Mooney, Jaya Ramji-Nogales, and participants at the Philadelphia JILSA summer workshop and the ASIL Legal Theory workshop on International Law as Behavior. I also thank research librarian Gabriela Femenia and the Penn Law Library more generally for terrific support on this project.

<sup>1</sup> FRED CHARLES IKLÉ, *HOW NATIONS NEGOTIATE* 143-163 (1964); *see also id.* at 262-264 (devoting a third of his bibliography to work on game theory, to psychological research on bargaining and expectations, and to studies on labor negotiations).

<sup>2</sup> *E.g.*, I. WILLIAM ZARTMAN & MAUREEN R. BERMAN, *THE PRACTICAL NEGOTIATOR* 4-6 (1982) (describing social scientific research on the bargaining process as an important strand of evidence for diplomacy); VICTOR A. KREMENYUK, ED., *INTERNATIONAL NEGOTIATION* 256-287 (2001) (containing a chapter on "Psychological Approach" by Jeffrey Rubin and one on "Cognitive Theory" by Christer Jönsson).

applicability of this new type of evidence, and yet the proper conclusion is that much of it needs to be translated rather dismissed.”<sup>3</sup>

International legal scholarship has traditionally been less welcoming of empirically grounded research on individual and group behavior. Although scholars engaged deeply with the question of how states behave in relation to international law, they did little to connect their theories with this empirical research. Instead, they grounded their theories on observations drawn from legal practice<sup>4</sup> or on assumptions of instrumental rationality.<sup>5</sup> But over the last decade, this has changed. There is now a substantial – and rapidly growing – body of work that expressly approaches international law using insights on human behavior drawn from empirical research on individuals and groups, with special attention paid to developments in behavioral economics and cognitive psychology.<sup>6</sup> This new wave of international legal scholarship posits the relevance of certain of these insights and seeks to demonstrate it through a variety of methods of proof.

This chapter explores the potential for connections between micro-level empirical research and international affairs by focusing on a procedural mechanism used at all levels of human society. This mechanism is deadlines. Deadlines – predetermined points in time by which actions are due to be completed – feature in almost every kind of human interaction. Indeed, to date the preparation of this book chapter has involved three deadlines set by the editor (all scrupulously met) and numerous self-imposed ones (none successfully met). They are essential to individual achievement, social interaction, the conduct of business, and governmental operation. In the international sphere, unfriendly deadlines were used at

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<sup>3</sup> ZARTMAN & BERMAN, *supra* note 2, at 5 (discussing several types of evidence, including empirical work from other contexts). Some scholars working more generally in international relations also draw on insights from empirical work in domestic contexts. *E.g.*, Jack S. Levy, *Loss Aversion, Framing, and Bargaining: The Implications of Prospect Theory for International Conflict*, 17 INT’L POL. SCI. REV. 179 (1996).

<sup>4</sup> *E.g.*, ABRAM CHAYES & ANTONIA HANDLER CHAYES, *THE NEW SOVEREIGNTY* (1995); Harold Hongju Koh, *Why Do Nations Obey International Law*, 106 YALE L. J. 2599 (1997); ANNE-MARIE SLAUGHTER, *A NEW WORLD ORDER* (2004).

<sup>5</sup> *E.g.*, JACK L. GOLDSMITH & ERIC A. POSNER, *THE LIMITS OF INTERNATIONAL LAW* (2005); ANDREW T. GUZMAN, *HOW INTERNATIONAL LAW WORKS* (2008).

<sup>6</sup> *E.g.*, Anne van Aaken, *Behavioral International Law and Economics*, 55 HARV. INT’L L. J. 421 (2014); Tomer Broude, *Behavioral International Law*, 163 U. PA. L. REV. 4 (2015); Jean Galbraith, *Treaty Options: Towards a Behavioral Understanding of Treaty Design*, 53 VA. J. INT’L L. 309 (2013); Andrew K. Woods, *A Behavioral Approach to Human Rights*, 51 HARV. J. INT’L L. 51 (2010); *see also* Ryan Goodman & Derek Jinks, *How to Influence States: Socialization and International Human Rights Law*, 54 DUKE L. J. 621 (2004); RYAN GOODMAN ET AL., EDS. *UNDERSTANDING SOCIAL ACTION, PROMOTING HUMAN RIGHTS* (2012).

least as far back as the Peloponnesian War.<sup>7</sup> Today deadlines are an inescapable part both of pre-law diplomacy and of the operation of international legal regimes, as I show in Part I through a case study of the Chemical Weapons Convention.

Empirical research on deadlines in other contexts has the potential to be very useful for understanding how deadlines function in international legal practice. For one thing, there is a great deal of research on deadlines in other contexts, but almost none on deadlines in international legal practice.<sup>8</sup> For another thing, as I discuss further in Part II.A, aspects of this research suggest that deadlines can function in non-intuitive ways. These results come largely from experiments conducted in laboratory settings, which allow researchers to answer very precise questions with a high degree of causal certainty. In these settings, psychologists have shown that deadlines can trigger or increase behavior grounded in bounded rationality. For example, people tend to approach negotiations in more close-minded ways once deadlines are set and be more susceptible when making decisions under deadlines to whether choices are framed as losses or gains.

If this research has relevance for international affairs, then it could prove quite helpful for diplomats, negotiators, executive figures in international organizations, and other international actors. First, awareness of this research would make international actors more aware of when they may be acting under premises of bounded rationality and thus more capable of attempting “debiasing” strategies.<sup>9</sup> Second, international actors could harness insights from this research in pursuit of their substantive goals. By way of example, this research suggests that negotiators confronting complex issues should be wary of setting negotiating deadlines too early, that certain types of deadlines can have strategic values that go beyond what a rational choice model might predict, and that international actors seeking to encourage compliance on the part of others should take into account phenomena like the planning fallacy.

Yet these practical payoffs all depend on the relevance of this research

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<sup>7</sup> THUCYDIDES, THE HISTORY OF THE PELOPONNESIAN WAR 482-83 (Richard Crawley trans. 1874) (describing how a Spartan leader “sent a herald to tell [the Athenians] that, if they would evacuate Sicily with bag and baggage within five days’ time, he was willing to make a truce accordingly”); *see also, e.g.*, 1 *Samuel* 11:3 (“Give us seven days so we can send messengers throughout Israel; if no one comes to rescue us, we will surrender to you”).

<sup>8</sup> Deadlines have received a bit more attention in diplomatic studies. *See infra* notes 80-81 and accompanying text.

<sup>9</sup> For a general discussion of debiasing and its potential for effectiveness, see Jack B. Soll et al., *A User’s Guide to Debiasing*, in WILEY-BLACKWELL HANDBOOK OF JUDGMENT AND DECISION MAKING (Gideon Keren & George Wu, eds., forthcoming 2015), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2455986](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2455986).

for international affairs. In Part II.B, I take up the twin issues of relevance and of proof to date. I begin by drawing analogies between findings from this research and the way in which deadlines have worked or failed to work in the context of the Chemical Weapons Convention. These analogies suggest how insights from domestic research, if relevant, might explain aspects of the Convention and ways which it could have been improved. I then consider the issue of proof for and against relevance. This is an immensely complex question. In my view, the evidence suggests that many of the empirical findings discussed here have at least modest relevance to uses of deadlines in international affairs. But considerable uncertainty remains – and while this uncertainty could be reduced by future research, it can never be fully eradicated. Accordingly, as I turn to in Part II.C, the most important question may be whether and when international actors should assume relevance in the face of uncertainty. I suggest that more awareness of these issues and preliminary acceptance of their relevance would be valuable both in pre-law diplomacy and in international legal practice, despite certain differences between these two contexts.

#### I. DEADLINES IN INTERNATIONAL LEGAL PRACTICE: THE EXAMPLE OF THE CHEMICAL WEAPONS CONVENTION

Deadlines are central to international legal practice. They can be found almost anywhere one looks: in the creation and entry into force of international agreements, in the terms set by international agreements, in the communications among nations and other international actors in relation to international legal obligations, in the operation of international organizations, and in the practice of international tribunals. These deadlines are far from uniform in their legal effects. Some have no legal effect at all, such as many negotiating deadlines. Others mark a legal boundary of opportunity, such as the last date on which a particular treaty can be signed or a legal filing submitted to an international court. Still other deadlines serve as a legal line between compliance and non-compliance with international obligations, such as ultimatums given by the Security Council or reporting deadlines set out in treaties. Separate from these various legal effects (though often related to them), deadlines in international legal practice also vary substantially in their purposes and practical pliability.

To illustrate these points, this section briefly highlights some uses of deadlines in relation to an important multilateral treaty: the Chemical Weapons Convention.<sup>10</sup> This description illustrates how actors engaged in

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<sup>10</sup> Convention on the Prohibition of the Development, Production, Stockpiling and use of Chemical Weapons and on their Destruction, opened for signature Jan. 13, 1993, 1974 U.N.T.S. 45 (entered into force Apr. 29, 1997) [hereinafter “Chemical Weapons

international legal matters inevitably find themselves in the business of setting deadlines (or not setting them), working to meet deadlines (or sometimes failing to do so), and deciding what to do when they or others miss deadlines. The discussion here does not exhaust the roles that deadlines can play in international legal practice. But since the Convention relies more heavily on deadlines than do many other international regimes, this discussion does showcase a variety of ways in which deadlines can be used.

*Negotiation of the Convention.* Negotiations for the Chemical Weapons Convention occurred over many years,<sup>11</sup> and, strikingly, there seems to have been little emphasis on negotiating deadlines until near the end of the process. Discussions began during the late 1960s, when the Cold War superpowers signaled their openness to conversations about disarmament of biological and chemical weapons. A 1925 treaty already prohibited the use of such weapons in war, but it did not address disarmament and in any event had not attracted comprehensive ratification.<sup>12</sup> Under the auspices of a U.N. disarmament group that included both the United States and the Soviet Union, a treaty on biological weapons was negotiated by 1971. The text of this treaty imposed an obligation on state parties to “continue negotiations in good faith” with regard to chemical weapons.<sup>13</sup> These negotiations did continue, but for a long time did so without any emphasis on reaching conclusion. In the mid to late 1980s, the negotiating process picked up, and the General Assembly began to pass resolutions urging the “final elaboration of a convention at the earliest possible date.”<sup>14</sup> Finally, in May 1991, President George H.W. Bush announced the intention of the United

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Convention”].

<sup>11</sup> For a detailed history of the negotiations up to 1990, see Thomas Bernauer, *THE PROJECTED CHEMICAL WEAPONS CONVENTION: A GUIDE TO THE NEGOTIATIONS IN THE CONFERENCE ON DISARMAMENT* (1990); see also Julian Perry Robinson, *The Negotiations on the Chemical Weapons Convention: A Historical Overview*, in *THE NEW CHEMICAL WEAPONS CONVENTION: IMPLEMENTATION AND PROSPECTS* 17, 17-36 (M. Bothe et al., eds., 1998).

<sup>12</sup> That treaty is the 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare, June 17, 1925, 94 L.N.T.S. 65. Many states had attached reservations reserving the right to retaliate in kind if they were the victims of chemical or biological warfare, and the United States did not even become a party until 1975 (after the Vietnam War). Bernauer, *supra* note 11, at 12, 15.

<sup>13</sup> Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction art IX, Apr. 10, 1972, 1015 U.N.T.S. 163.

<sup>14</sup> G.A. Res 41/58 ¶ D.3, U.N. Doc. A/RES/41/58 (Dec. 3, 1986) (further urging the negotiators to submit a draft convention by the next General Assembly session); see also G.A. Res 42/37, U.N. Doc. A/RES/42/37 (Nov. 30, 1987); G.A. Res. 45/57, U.N. Doc. A/RES/45/57A (Dec. 4, 1990).

States to “call for a target date to conclude the convention and recommend the Conference [on Disarmament] stay in continuous session if necessary to meet the target.”<sup>15</sup> The negotiators then embraced a target deadline of one last year of negotiations. This was not a deadline with legal effect, but it was a deadline that served to speed the negotiations along. The final version of the treaty was sent on to the General Assembly in September 1992.<sup>16</sup>

*Entry into Force of the Convention.* The Convention provided that it would enter into force 180 days after it received its sixty-fifth ratification.<sup>17</sup> The date the Convention entered into force – ultimately April 29, 1997 – served as a deadline for several kinds of legal opportunities. For example, it marked the end of the Convention’s availability for signature. This was mostly a matter of symbolism, as accession remained an option after the Convention entered into force. Nonetheless, it triggered action: while the overwhelming majority of signatories signed in 1993, which was the year the Convention opened for signature, four out of the eleven subsequent signatures were added in the single month of April 1997.<sup>18</sup>

The entry-into-force date also served as a deadline in more important ways. In the United States, it galvanized the Convention’s supporters from President Clinton on down to strive for the advice and consent of two-thirds of the Senate, as required for the ratification of treaties under Article II of the U.S. Constitution.<sup>19</sup> In testimony before the Senate Foreign Relations Committee on April 8, 1997, Secretary of State Madeline Albright powerfully described this date as a deadline whose legal and practical effects should inspire the Senate into action:

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<sup>15</sup> President George H.W. Bush, Statement on Chemical Weapons (May 13, 1991), available at <http://www.gpo.gov/fdsys/pkg/PPP-1991-book1/html/PPP-1991-book1-doc-pg503.htm>

<sup>16</sup> Robinson, *supra* note 11, at 29-30.

<sup>17</sup> Chemical Weapons Convention art. XXI(1) (further providing a two-year minimum between its opening for signature and its entry into force).

<sup>18</sup> Author’s calculations from United Nation Treaty Collection, MTDSG database entry on the Chemical Weapons Convention, available at [https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg\\_no=XXVI-3&chapter=26&lang=en](https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI-3&chapter=26&lang=en) (listing a total of 165 signatories, of whom 154 signed in 1993).

<sup>19</sup> For a description of how “with its back against the wall” the Clinton Administration collected endorsements from leading Republicans, cut side-deals with key Republican Senate leaders, and pushed the treaty through the Senate, see *John V. Parachini, U.S. Senate Ratification of the CWC: Lessons for the CTBT*, THE NONPROLIFERATION REVIEW 62, 65-68 (Fall 1997). See also, e.g., Steven Lee Myers, *Clinton Mobilizes Bipartisan Effort on Chemical Arms*, N.Y. TIMES (Apr. 5, 1997), available at <http://www.nytimes.com/1997/04/05/world/clinton-mobilizes-bipartisan-effort-on-chemical-arms.html> (describing how “[t]he deadline of April 29 has given the issue a sense of urgency”).

The CWC will enter into force on April 29. Our goal is to ratify the agreement before then so that America will be an original party. ...

[I]f we fail to ratify the agreement by the end of April:

- we would forfeit our seat on the treaty's Executive Council for at least a year, thereby costing us the chance to help draft the rules by which the Council will be enforced;
- we would not be able to participate in the critical first sessions of the Organization for the Prohibition of Chemical Weapons, which monitors compliance;
- we would lose the right to help administer and conduct inspections; and
- because of the trade restrictions imposed on non-member states, or chemical manufacturers are concerned that they would risk serious economic loss.<sup>20</sup>

This rhetorical use of the entry-into-force date as a deadline exaggerated its actual importance. Albright's first concern was legitimate, although in practice the real deadline for it was likely a week or so later than the entry-into-force date.<sup>21</sup> The second and third concerns were not consequences of missing the entry-into-force date, but rather were more general consequences of not being party to the treaty. Finally, as for the trade concerns alluded to, these would at first have applied only to chemicals used almost exclusively for chemical warfare and presumably thus not for the kinds of chemicals that U.S. manufacturers were exporting in practice.<sup>22</sup>

Yet the impetus of the deadline proved "critical to moving the U.S. process of ratification"<sup>23</sup> at a time when the Senate was generally hostile to

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<sup>20</sup> Secretary of State Madeleine K. Albright, Statement before the Senate Foreign Relations Committee on Chemical Weapons Convention (Apr. 8, 1997), available at <http://1997-2001.state.gov/www/statements/970408.html> (further adding "I have heard the argument that the Senate really need not act before April 29. But as I have said, there are real costs attached to any such delay.").

<sup>21</sup> The Conference of State Parties met on for its first session on May 6, 1997 and selected its Executive Council not long after that. See OPCW, Report of the Organisation on the Implementation of the Convention 1 (Nov. 20, 1998), [http://www.opcw.org/index.php?eID=dam\\_frontend\\_push&docID=3953](http://www.opcw.org/index.php?eID=dam_frontend_push&docID=3953) [hereinafter OPCW 1998 Report].

<sup>22</sup> Chemical Weapons Convention art. VI & Annex on Implementation and Verification. For discussion, see Thilo Maruhn, *National Regulations on Export Controls*, in *THE NEW CHEMICAL WEAPONS CONVENTION: IMPLEMENTATION AND PROSPECTS*, *supra* note 11, at 487, 490-92 (explaining how these restrictions at first applied only to Schedule 1 chemicals, with restrictions on transfers of Schedule 2 and potentially Schedule 3 chemicals to be phased in later).

<sup>23</sup> Parachini, *supra* note 19, at 62.



major treaties. The Senate advised and consented to the treaty 74-26 on April 24, 1997.<sup>24</sup> The United States ratified the Convention the next day, becoming one of fourteen countries to ratify in the week leading up to the Convention's entry into force.<sup>25</sup>

*Deadlines in the text of the Convention.* The Convention was designed to achieve not only state commitment, but also state compliance. Its text is permeated with deadlines – indeed, it is impossible to imagine how the Convention could function without them. There are deadlines by which nations are to take certain actions, most notably for completing the destruction of their chemical weapons and of their production facilities for these weapons.<sup>26</sup> There are deadlines related to the inspection process.<sup>27</sup> There are reporting deadlines for state parties.<sup>28</sup> There are procedural deadlines related to how the international organization established by the Convention will operate.<sup>29</sup> And there are other kinds of deadlines as well.<sup>30</sup>

Unlike the negotiating deadlines and the entry-into-force deadline, most of these deadlines mark the legal line between compliance and non-compliance. Those countries that have failed to meet these deadlines are in violation of international law. In particular, the United States and Russia have violated the Convention's deadlines for the destruction of chemical stockpiles.<sup>31</sup> The Convention requires state parties to destroy their chemical

<sup>24</sup> Adam Clymer, *Senate Approves Pact on Chemical Weapons after Lott Opens the Way*, N.Y. TIMES (Apr. 25, 1997), available at <http://www.nytimes.com/1997/04/25/world/senate-approves-pact-on-chemical-weapons-after-lott-opens-way.html>.

<sup>25</sup> Author's calculations from United Nation Treaty Collection, MTDSG database entry on the Chemical Weapons Convention, available at [https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg\\_no=XXVI-3&chapter=26&lang=en](https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI-3&chapter=26&lang=en) (including Cuba, which ratified on the entry-into-force date).

<sup>26</sup> Chemical Weapons Convention art. IV(6) (providing that destruction is to be completed within ten years of the Convention's entry into force for countries that are parties to the convention during that period); *id.* art. V(8) (providing similar deadlines for the destruction of production facilities); *see also id.* Annex on Implementation and Verification IV(A).C.24-26 (allowing the deadlines for destruction to be extended to up to five more years under certain conditions).

<sup>27</sup> *Id.* art. IX (providing very detailed deadlines that are triggered when State parties raise certain concerns or request inspections with regard to other state parties).

<sup>28</sup> *E.g., id.* art. III(1) (initial declarations due within 30 days of the Convention's entry into force); *id.* art. IV(7) (specifying various other reporting deadlines); *id.* art. V(9) (more reporting deadlines).

<sup>29</sup> *Id.* art. VIII(B) (providing deadlines by which certain sessions must occur and by which certain reviews of the Convention must happen); *id.* art. VIII(D)(39) (providing a deadline for the Technical Secretariat to undertake certain steps)

<sup>30</sup> *E.g., id.* art. X(8)-(9) (identifying the deadline-laden process a state party can invoke if it believes chemical weapons have been used against it); *id.* art. XV (identifying deadlines in relation to the amendment process).

<sup>31</sup> *See generally* David A. Koplow, *Train Wreck: The U.S. Violation of the Chemical*

weapons, beginning “no later than two years after this Convention enters into force” for the parties and “finish[ing] not later than 10 years after entry into force of this Convention,” with certain intermediate deadlines as well.<sup>32</sup> There was also a possible further extension of up to five years.<sup>33</sup> These deadlines were, in the later words of one U.S. official:

inserted into the text with the vigorous support of the United States. With the information then available to us and the program projections then being used, the deadlines offered what we judged as a very safe margin [for the United States] while not allowing other states to procrastinate indefinitely in their own destruction programs.<sup>34</sup>

But long before April 2012, the United States knew that it was not going to meet these deadlines, apparently due to a combination of environmental issues, not-in-my-backyard community concerns, and funding limitations.<sup>35</sup> It made a deliberate choice to be noncompliant rather than to ramp up its efforts to ensure compliance or to seek amendment of the Convention.<sup>36</sup> In essence, U.S. officials appear to have calculated that as long as the U.S. continued making genuine, good-faith progress towards the destruction of chemical weapons, it could absorb the normative and reputational consequences of an international legal violation.<sup>37</sup> The United States has now destroyed around 90% of the stockpile it declared in the 1990s, and Russia has destroyed around 60% of its declared stockpile.<sup>38</sup>

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*Weapons Convention*, 6 J. NAT’L SEC. L. & POL’Y 319 (2013) (providing an excellent account of the U.S. non-compliance and also describing the non-compliance of Russia and certain other parties).

<sup>32</sup> Chemical Weapons Convention art. IV(6) (adding that “A State Party is not precluded from destroying such chemical weapons at a faster rate”); *id.* Annex on Implementation and Verification IV(A).C.17-26. The annex also includes intermediate deadlines – thus, each country is to destroy at least 1% of Category 1 chemical weapons within three years of the entry into force, 20% within five years, and 45% within seven years. *Id.* Annex on Implementation and Verification IV(A).C.17.

<sup>33</sup> *See id.* Annex on Implementation and Verification IV(A).C.17-26.

<sup>34</sup> Deputy Assistant Secretary for Arms Control Implementation Donald A. Mahley, Statement on Chemical Weapons Demilitarization before the Senate Armed Services Committee’s Subcommittee on Emerging Threats and Capacities (Apr. 11, 2005), <http://2001-2009.state.gov/t/ac/rls/rm/44633.htm> [hereinafter Mahley Statement]; *see also* Koplow, *supra* note 31, at 328 & n. 58 & 333 n. 84 (providing additional evidence of U.S. confidence at the time of ratification in its ability to meet the deadline).

<sup>35</sup> Koplow, *supra* note 31, at 334-338.

<sup>36</sup> Mahley Statement, *supra* note 34.

<sup>37</sup> *Id.* (stating that “I do not believe that we will damage our international influence fatally, if we have not completed our destruction by the deadline, so long as we are continuing to devote obvious and extensive efforts and resources to the program and so inform the other parties”); *see generally* Koplow, *supra* note 31 (describing and analyzing the approach taken by the U.S.).

<sup>38</sup> *See* Guy Taylor, *Foot-Dragers: U.S. and Russia Slow to Destroy Own Chemical*

Supplemental Deadlines. In addition to the deadlines written into the Convention itself, practice under the Convention can give rise to other deadlines. Recent events regarding Syria provide an especially prominent example. After the use of chemical weapons in Syria in 2013, a diplomatic resolution was reached whereby Syria acceded to the Convention and committed to destroying its chemical weapons. The time frame developed for destruction involved a series of distinct deadlines: mustard gas was to be removed from Syria by December 31, 2013 and destroyed elsewhere by March 31, 2014; other declared chemicals were to be removed from Syria by February 5, 2014 and destroyed by June 30, 2014; and other deadlines were provided for containers and production facilities.<sup>39</sup> Syria did not fully comply with these deadlines and egregiously appears to still be using chlorine and possibly other chemicals as a weapon.<sup>40</sup> Nonetheless, it seems clear that the deadlines proved important in measuring and drawing salience to Syria's degree of compliance<sup>41</sup> – and thus likely improved the effectiveness of the process. By August 28, 2014, 94% of Syria's declared chemical weapons stockpile had been destroyed.<sup>42</sup>

## II. DEADLINES AND BEHAVIOR: RESEARCH AND CONUNDRUMS

Deadlines abound in domestic affairs, just as they do in international ones. Indeed, they are probably even more pervasive – and they are certainly much more studied. There is an impressive body of empirical

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*Weapons amid Syria Smackdown*, WASH. TIMES (Sept. 22, 2013), available at <http://www.washingtontimes.com/news/2013/sep/22/us-and-russia-press-syria-but-are-slow-to-destroy-/?page=all#pagebreak>. The U.S. and the Russians are not the only nations having difficulty with the timely destruction of chemical weapons – for example, under the Convention Japan has an obligation to destroy chemical weapons that it left in China during World War II, and this destruction is moving slowly. See Koplou, *supra* note 31, at 352.

<sup>39</sup> OPCW, Decision on Detailed Requirements for the Destruction of Syrian Chemical Weapons and Syrian Chemical Weapons Production Facilities 3 (Nov. 15, 2013), [http://www.opcw.org/fileadmin/OPCW/EC/M-34/ecm34dec01\\_e.pdf](http://www.opcw.org/fileadmin/OPCW/EC/M-34/ecm34dec01_e.pdf).

<sup>40</sup> Somini Sengupta et al., *Inspectors in Syria Find Traces of Banned Military Chemicals*, N.Y. TIMES (May 12, 2015), available at [http://www.nytimes.com/2015/05/13/world/middleeast/inspectors-in-syria-find-traces-of-banned-military-chemicals.html?\\_r=0](http://www.nytimes.com/2015/05/13/world/middleeast/inspectors-in-syria-find-traces-of-banned-military-chemicals.html?_r=0).

<sup>41</sup> For example, news coverage of Syria's compliance with its agreement tended to be more intense around the time of deadlines and focused heavily on the deadlines. *E.g.*, Rick Gladstone, *Syria to Miss Deadline on Weapons, Official Says*, N.Y. TIMES (May 28, 2014), available at <http://www.nytimes.com/2014/05/29/world/middleeast/chemical-weapons-syria.html>.

<sup>42</sup> OPCW Press Release, All Category 1 Chemicals Declared by Syria Now Destroyed (Aug. 28, 2014), <http://www.opcw.org/news/article/opcw-all-category-1-chemicals-declared-by-syria-now-destroyed/>.

research on how deadlines function for individuals and to some extent groups, as well as some research on deadlines in relation to government regulation. Interestingly, this research suggests that people tend to set and respond to deadlines in ways that reveal bounded rather than perfect rationality. As one literature review bluntly puts it, “[g]iven the value of deadlines and how frequently people encounter them, it is surprising that people are poor at setting optimal deadlines for themselves.”<sup>43</sup>

This section first engages with some of this social scientific research on deadlines, describing empirical work on deadlines in relation to negotiations, decision-making, project completion, and governmental regulation. It then considers what relevance this research might have for international affairs by returning to example of the Chemical Weapons Convention. It next takes up the question of how much proof we have of relevance or irrelevance. Finally, it considers the extent to which, in the absence of strong proof, practitioners in diplomacy and international law should care about domestic research on deadlines.

#### A. *Empirical Research on Deadlines in Domestic Settings*

Deadlines are essential to human activity. They set priorities among different projects, coordinate activity among multiple actors, measure and incentivize compliance, and generally further action where delay is costly. Yet deadlines are a double-edged sword, as the values of avoiding delay are paired with the costs that come with haste. Moreover, both the gains and the costs depend on human behavior in relation to deadlines – and especially on how rational people are in setting deadlines and in responding to them.

In what follows, I briefly describe some empirical research on deadlines in four contexts – negotiation, decision-making, project completion, and administrative law. More particularly, I focus on work which suggests that deadlines can trigger or exacerbate the cognitive biases that broader research in psychology and behavioral economics has shown to exist. I thus do not address the pros and cons of deadlines under a theoretical framework grounded in rational choice. I also omit considerable bodies of research (such as work in cultural studies) and even with respect to work on deadlines in psychology and behavioral economics, my discussion is necessarily incomplete.

*Negotiation.* Perhaps the area in which deadlines have received the most study has been negotiations between individuals. Lab experiments

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<sup>43</sup> Don A. Moore & Elizabeth R. Tenney, *Time Pressure, Performance, and Productivity*, in LOOKING BACK, MOVING FORWARD: A REVIEW OF GROUP AND TEAM-BASED RESEARCH (Margaret Neal & Elizabeth Mannix, eds., 2012) at 316-17.

have studied many aspects of time pressure of negotiations, including how it affects strategy,<sup>44</sup> how it affects concessions and perceptions of concessions,<sup>45</sup> and how it affects the quality of agreements. One important and well-substantiated result is that time constraints lead to less innovative negotiations – i.e., to negotiations that focus on dividing the pie rather than identifying ways to increase its size.<sup>46</sup> More focused work suggests that this result does not simply reflect the fact that less time provides less opportunity for thinking of creative solutions. Instead, it stems at least partly from a cognitive shift: when people feel themselves under time pressure, they are more likely to close off their minds and rely on pre-existing assumptions.<sup>47</sup>

*Decision-making.* In the individual decision-making context, research suggests that deadlines encourage people to exercise options.<sup>48</sup> Research also suggests that deadlines magnify the power of heuristics. As one literature review puts it, “Decision makers under time pressure ... are less likely to revise their initial impressions, are less likely to deviate from habitual modes of attribution, are more likely to rely on cognitive heuristics, are less accurate, and are less confident in the accuracy of their decisions.”<sup>49</sup> Where a deadline prevents an individual from gathering and absorbing all

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<sup>44</sup> E.g., Uri Gneezy et al., *Bargaining under a Deadline: Evidence from the Reverse Ultimatum Game*, 45 GAMES & ECONOMIC BEHAVIOR 347 (2003) (finding in lab experiments that individuals take advantage of strategic possibilities presented by deadlines – such as by trying to make offers close enough to deadlines that they force binary options upon their negotiating partners – but don’t do so as much as rational choice predictions would suggest).

<sup>45</sup> E.g., Igor Mosterd & Christel G. Rutte, *Effects of Time Pressure and Accountability to Constituents on Negotiation*, 22 INT’L J. CONFLICT MANAGEMENT 227 (2000) (finding in lab experiments that when acting under time pressure negotiators are more likely to make concessions on their own behalf but less likely to make them on behalf of their principals); Don. A Moore, *Myopic Biases in Strategic Social Prediction: Why Deadlines Put Everyone Under More Pressure Than Everyone Else*, 31 PERS. SOC. PSYCHOL. BULL. 668 (2005) (finding in lab experiments that people tend to overestimate the degree to which their own deadlines will harm them in the negotiating process).

<sup>46</sup> See Carsten K.W. De Dreu, *Time Pressure and Closing of the Mind in Negotiation*, 91 ORGANIZATIONAL BEHAVIOR AND HUMAN DECISION PROCESSES 280, 280-282 (2003) (reviewing the literature on this issue).

<sup>47</sup> *Id.* at 286-90. This experiment gave two groups of subjects exactly the same amount of time for a negotiation, but told one group that this time was more than enough to complete the negotiation and told the other group that this time limit would make things tight. Negotiating pairs from the group told that that time limit would make things tight proved significantly less likely to come to innovative agreements that grew the pie. *Id.*

<sup>48</sup> See Daphna Lewinsohn-Zamir et al., *It’s Now or Never!* (working paper), available at <http://law.huji.ac.il/upload/Deadline.LEWINSOHN.ZAMIR.RITOV.pdf> (finding that individuals are more likely to take action when asked to do so under a deadline in contexts such as providing optional feedback).

<sup>49</sup> Moore & Tenney, *supra* note 43, at 307 (citations omitted).

the information she would ideally like to have in order to make a decision, then reliance on heuristics may sometimes be a rational strategy. But research suggests that deadlines may also increase the power of irrational biases as well. One of the core insights in behavioral economics is that people can be responsive to framing effects. For example, they may respond differently to the same event depending on whether this event is characterized as a gain or a loss, because their aversion to perceived losses is greater than their pleasure at perceived gains.<sup>50</sup> Time pressure appears to magnify framing effects in relation to loss aversion. In one lab experiment, each subject was asked how likely it was that he/she would tell a potential buyer of a stereo that another offer had also been received, when in fact there was no such other offer.<sup>51</sup> For some subjects, the instructions framed the transaction as a gain (they had a “25% chance of gaining” a sale) while for other subjects the instructions framed the transaction as a way to avoid a loss (they had a “75% chance of losing out on” a sale).<sup>52</sup> Where the subjects were encouraged to respond as quickly as possible, they showed high susceptibility to the framing effects. Those for whom the transaction was framed as a loss were significantly more likely to answer that they would claim another offer had been received.<sup>53</sup>

*Project completion.* Research from a variety of contexts suggests that individuals and groups suffer from a “planning fallacy” of over-optimism about how long it takes to get things done.<sup>54</sup> Deadlines are often essential to generating action, even though people do not always meet them.

Yet deadlines do not always work quite in the ways we might rationally predict. Although a rational choice approach might posit that individuals do better with maximum flexibility (since then they have the most options for how to rationally allocate their time), the existence of intermediate deadlines can noticeably improve performance. One field experiment by Dan Ariely and Klaus Wertenbroch gave proof-readers three error-laden texts to read and randomly divided them to one of three conditions: first,

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<sup>50</sup> E.g., Daniel Kahneman & Amos Tversky, *Choices, Values, and Frames*, 39 AM. PSYCH. 341, 343-44 (1984); William Samuelson & Richard Zeckhauser, *Status Quo Bias in Decision Making*, 1 J OF RISK AND UNCERTAINTY 7, 35-36 (1988).

<sup>51</sup> Mary C. Kern & Dolly Chugh, *Bounded Ethicality: The Perils of Loss Framing*, 20 PSYCHOLOGICAL SCIENCE 378, 380 (2009).

<sup>52</sup> *Id.*

<sup>53</sup> *Id.* By contrast, the frames in this experiment had basically no effect for subjects who were told to take their time in answering. *Id.*

<sup>54</sup> DANIEL KAHNEMAN & AMOS TVERSKY, INTUITIVE PREDICTION: BIASES AND CORRECTIVE PROCEDURES 2-2 (1977); Roger Buehler et al., *Collaborative Planning and Prediction: Does Group Discussion Affect Optimistic Biases in Time Estimation*, 97 ORG. BEHAV. AND HUMAN DECISIONS PROCESSES 47 (2005) (finding the planning fallacy to exist in group predictions in both laboratory and real-world projects and to be even stronger than with regard to individual predictions).

where all three texts were due back at the end of three weeks, second, where one text was due back a week for three weeks; and third, where the proof-readers set their own deadlines (with an outer limit of three weeks).<sup>55</sup> The proof-readers with the assigned weekly deadlines caught the most errors, the proof-readers with the single deadline after three weeks caught the least errors, and the group with self-imposed deadlines performed in the middle.<sup>56</sup>

Other research suggests that the first intermediate deadline can play an outsized role in setting the pace on a project. In one laboratory experiment, small groups were given the same total amount of time to complete a project, but were randomly assigned to different sets of intermediate deadlines.<sup>57</sup> Thus, one set of groups had first 5 minutes, then 10 minutes, then 20 minutes for an anagram-solving project, while the other set of groups had first 20 minutes, then 10 minutes, then 5 minutes for the same project. The first set of groups – the ones given shorter initial deadlines – were more substantially productive than the second set of groups.<sup>58</sup> Several other laboratory experiments have found similar “rate persistence.”<sup>59</sup>

*Regulatory/Legal Deadlines.* The deadlines discussed so far in this section have mostly been small-stakes affairs and it is hard to know the extent to which they scale up to matters of great importance. In addition, these deadlines have also not carried the force of law, and it may be that the normative or practical risks of legal violations trigger different behavioral instincts (or at least different magnitudes). Although research on legal deadlines is more limited, there is some observational work on their role, particularly in U.S. regulatory law. In keeping with the other findings on deadlines, this research suggests that deadlines are often not used to best effect. Regulatory deadlines set in statutes are frequently far too optimistic, in a manner evocative of the planning fallacy. Agencies often miss legal deadlines, and even when they make the deadlines it is sometimes at the expense of other tasks that lack deadlines but that may in fact have more substantive importance.<sup>60</sup> In one case study of EPA

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<sup>55</sup> Dan Ariely & Klaus Wertenbroch, *Procrastination, Deadlines, and Performance: Self-Control by Precommitment*, 13 PSYCHOLOGICAL SCIENCE 219 (2002) (also conducting a similar experiment with term papers by executive-education students).

<sup>56</sup> *Id.* at 222-223 (noting that all differences were statistically significant).

<sup>57</sup> Joseph E. McGrath et al., *The Social Psychology of Time: Entrainment of Behavior in Social and Organizational Settings*, 5 APP. SOC. PSYCH. MAN. 21, 30-31 (1984).

<sup>58</sup> *Id.*

<sup>59</sup> Moore and Tenney, *supra* note 43, at 315-16.

<sup>60</sup> Alden F Abbot, *The Case Against Federal Statutory and Judicial Deadlines: a Cost-Benefit Appraisal*, 39 ADMIN L REV 171, 181-183 (1987); *see also* Jacob E. Gersen & Anne Joseph O’Connell, *Deadlines in Administrative Law*, 156 UNIV. OF PA. L. REV. 923, 973-975 (2008) (considering how deadlines may distort agency priorities in undesirable

decision-making under deadlines, Philip Bromily and Alfred Marcus found that time pressure imposed by deadlines combined with agency habits of routine in ways that minimized innovation.<sup>61</sup> Their account bears considerable resemblance to the findings described above in the individual context regarding how deadlines can close minds and overly increase reliance on preexisting heuristics.

### B. *Domestic Research and International Legal Practice*

What if anything does this domestic research on deadlines tell us about international legal practice? This section takes up this question – first in an indirect manner, and then in a more direct one. I begin indirectly by assuming the relevance of this research and considering what it might suggest about the use of deadlines in the Chemical Weapons Convention. This discussion is meant as an example of how insights from domestic research, if relevant, could be useful in international legal design. I then turn directly to the question of how much proof we have of the relevance of these insights.

#### 1. The Chemical Weapons Convention's Deadlines in Light of Domestic Research on Deadlines

As discussed earlier, the Chemical Weapons Convention has involved many different kinds of deadlines – including negotiating deadlines, decision-making deadlines, and legally binding deadlines for project completion. There are interesting parallels between the role played by these deadlines and the empirical research on deadlines described above.

First, returning to the negotiation of the Convention, it is notable how little emphasis there was on deadlines until near the end of the process. If we assume the relevance of the domestic research discussed above, we would expect that this furthered the likelihood that the negotiations would produce an innovative, surplus-producing agreement. Because of the absence of deadlines in the formative years of the negotiations, time pressure is unlikely to have served either as an objective constraint or as a subjective constraint that caused the closing of minds. And, indeed, in the

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ways); Daniel Carpenter et al., *The Complications of Controlling Agency Time Discretion: FDA Review Deadlines and Postmarket Drug Safety*, 56 AM. J. POL. SCI. 98 (2012) (finding that drugs approved right before FDA statutory deadlines tend to have more safety problems than drugs approved at other times, and concluding that this is likely due to differences in time pressure).

<sup>61</sup> Philip Bromiley & Alfred Marcus, *Deadlines, Routine, and Change*, 20 POLICY SCIENCES 85, 87-93 (1987); *but see id.* at 93-98 (finding that deadlines helped trigger more substantial changes where there was a preexisting period of turmoil).



Chemical Weapons Convention we see a remarkably creative agreement by international legal standards. It is “unprecedented in its scope”<sup>62</sup> and contains a robust and unusual compliance scheme.<sup>63</sup>

Second, considering the ratification of the Convention by the United States, it is striking how significant the entry-into-force date proved to this process. As discussed earlier, the practical importance of meeting this deadline was modest at best, but its power as a rallying force was immense. Conveniently, the deadline came towards the beginning of the legislative session, rather than at the packed end of a term.<sup>64</sup> The deadline made it easier for the treaty’s supporters to frame timely ratification in a way that would trigger loss aversion – i.e., that failure to ratify by the entry into force date would be an opportunity that would be lost forever if not exercised. Madeline Albright’s testimony emphasized the losses that would follow from non-ratification by the deadline: the United States would “forfeit” its Executive Council seat, “lose the right” to set inspections in motion, and “risk serious economic loss” for U.S. industry.<sup>65</sup>

Third, regarding how the Convention’s deadlines are working in practice, it is clear that many of these deadlines have not been met. Research on deadlines in the domestic context, if relevant, may shed some light on how these deadlines have and have not worked. Research on the planning fallacy would predict that the Convention’s deadlines would be over-optimistic, and indeed this has proved to be the case. Some of the Convention’s deadlines were probably known to be aspirational when put into place.<sup>66</sup> Yet the fact that the United States has missed the final deadline for destruction of chemical weapons is one that may not have been predicted at the beginning. As discussed earlier, the United States thought that the deadlines would allow it plenty of time. It was too sanguine about the technical ease of the destruction process and also failed to take adequately into account environmental issues and not-in-my-backyard resistance. In consequence, we have what David Koplow describes as an

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<sup>62</sup> Clinton Letter of Transmittal November 23, 1993.

<sup>63</sup> See Bothe et al., *Conclusions*, in *THE NEW CHEMICAL WEAPONS CONVENTION: IMPLEMENTATION AND PROSPECTS*, *supra* note 11, at 591 (discussing how the Convention is “an unprecedented instrument if compared with the provisions of other international disarmament agreements”).

<sup>64</sup> By way of contrast, the Law of the Sea Convention entered into force in November 1994, right around the end of a Congressional session. It got no traction at that time and, despite powerful supporters, has still not received U.S. ratification. See Jean Galbraith, *Prospective Advice and Consent*, 37 *YALE J. INT’L L.* 247, 302 (2012).

<sup>65</sup> Albright, *supra* note 20.

<sup>66</sup> For example, the requirement that nations submit initial declarations within thirty days of the CWC’s entry into force had an initial compliance rate of around a third. OPCW 1998 Report, *supra* note 21, at 3-4 (noting that another third came in over the next five months).

“international law train wreck” – despite being a “prime mover in negotiating and implementing” the Chemical Weapons Convention, the United States has “fall[en] into [a] conspicuous violation.”<sup>67</sup>

Perhaps the Convention’s negotiators could have made better initial choices with regard to the destruction deadlines. If phenomena like the planning fallacy and rate persistence are applicable at the international law level and negotiators are aware that this is the case, then negotiators might factor these issues into compliance design. If they factored in concerns about the planning fallacy, for example, negotiators might have structured the compliance regime differently to make more provision for reasonable but unsuccessful efforts to meet the deadlines. Relatedly, the design of intermediate deadlines in the Convention seem problematic if one is conscious of rate persistence. These deadlines – 1% destruction by three years, 20% within 5 years, and 45% within 7 years<sup>68</sup> – assumed that destruction would ramp up sharply over time (presumably based on technological assumptions). But if rate persistence is indeed a concern, then this uphill design is problematic. It might have been better to set higher targets earlier, even though the risk of missing these targets would also higher. An approach like this was in fact taken with respect to Syria. The initial deadlines were quite ambitious and were not met. Yet they proved quite effective in furthering the prompt destruction of most of Syria’s declared chemical weapons.

As this discussion suggests, if domestic research on deadlines is relevant, then it could be quite useful to diplomats and other international actors. Quite unintentionally, the Chemical Weapons Convention may have harnessed behavioral mechanisms that benefitted it. Although the absence of initial negotiating deadlines stemmed from Cold War realities, it may have proved valuable in enabling the development of a far-reaching and creative agreement. And although the triggers attached to the entry-into-force provisions had other purposes, they ended up helping the Convention’s U.S. supporters rally around the entry-into-force date and to frame non-ratification by that date as a loss for the United States. In the future, diplomats could use these mechanisms more strategically. Similarly, if the domestic research on deadlines is relevant to international regime design, then it has important implications for how deadlines can most effectively further compliance on the part of states and other international actors.

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<sup>67</sup> Koplow, *supra* note 31, at 319.

<sup>68</sup> Chemical Weapons Convention Annex on Implementation and Verification IV(A).C.17 (containing the deadlines for Category 1 substances).

## 2. The Challenge of Proving Relevance or Irrelevance

This section considers how relevant the domestic research on deadlines discussed here is to international legal practice. Broadly speaking, I focus on two related forms of proof: first, evidence addressing the broader relevance of behavioral principles to international legal practice; and, second, evidence specific to the use of deadlines. Taken together, I think the evidence suggests that this domestic research is relevant (and more than trivially so), but also that this evidence is not conclusive.

*Behavioral Principles.* There is an increasing body of work linking behavioral insights to international legal practice. A core insight in favor of this connection is deductive: evidence strongly suggests that bounded rationality is a general human trait and, after all, international legal practice is ultimately the work product of humans. Against this is doubt about whether international actors partake of behavioral traits in ways predictable enough to be helpful in understanding international legal practice. This doubt stems from the potential heterogeneities between domestic experimental subjects and international decision-makers, the group-based nature of international decision-making, and the complexity of international issues and processes. Empirical work is increasingly bridging this gap and showing that, at least in some contexts, the connection holds. This work includes research showing that groups also display bounded rationality (though with somewhat different emphases)<sup>69</sup> and work indicating bounded rationality on the part of international actors in certain contexts. In prior work on treaty clauses allowing states to either opt in or to opt out of International Court of Justice jurisdiction, for example, I have shown that states behavior does not follow the predictions of a rational choice model but rather parallels findings from domestic behavioral research.<sup>70</sup>

The more that behavioral principles are shown to be at work in international legal practice in certain contexts, the stronger the case is for concluding that behavioral principles are at work as well in other contexts. Yet this inference can only be a cautious one. The relationship between behavioral principles and outcomes is heavily context dependent and requires “due regard for the relevant decision-making capacities of the actors in [their] specific setting.”<sup>71</sup>

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<sup>69</sup> van Aaken, *supra* note 6, at 446-49 (Part II) (describing some of this work).

<sup>70</sup> See generally Galbraith, *supra* note 6; see also Lauge N. Skovgaard Poulson & Emma Aisbett, *When the Claim Hits: Bilateral Investment Treaties and Bounded Rational Learning*, 65 *WORLD POLITICS* (2013) (demonstrating through interviews of international decision-makers that bounded rather than ideal rationality drove certain decision-making in relation to bilateral investment treaties and complementing this with quantitative work suggesting a similar conclusion).

<sup>71</sup> Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Sciences: Removing*

*Deadline-Specific Evidence.* With regard to the use of deadlines, I think the evidence supports a connection between at least some of the empirical findings in domestic contexts discussed above and international legal practice. The broader principles developed from this research – that low time pressure fosters more creative agreements, that framing matters, and that the planning fallacy is common – have evidentiary support from a variety of contexts. Observational findings in the domestic regulatory context, as discussed above, appear consistent with these principles. The prevalence of these findings suggests that they will likely prove true in international legal contexts. Moreover, some matters of international legal practice are largely domestic in practice, including ratification and aspects of implementation. Here, the parallels to the domestic regulatory context are even stronger.

We also have some initial work connecting behavioral patterns from the domestic context to the international context. I offered the case study of the Chemical Weapons Convention above primarily to show how empirical findings in the domestic context, if relevant, could help with good regime design, but I think this case study is also suggestive of relevance. For example, the U.S. failure to meet its destruction obligations seems like a straight-forward case of the planning fallacy. Far more extensively, Marco Pinfari has explored the role of deadlines in peace negotiations, using four case studies and data drawn from sixty-eight negotiations.<sup>72</sup> While, as noted earlier, work in diplomatic studies has historically been quite open to drawing inferences from domestic empirical work, Pinfari's work is the most up-to-date exploration of how domestic empirical research on negotiating deadlines might relate to their use internationally.<sup>73</sup> Pinfari finds a negative correlation between peace negotiations undertaken under conditions of time pressure and the ultimate durability of resulting agreements.<sup>74</sup> Pinfari concludes that "this analysis goes some way to confirming the argument that emerges from a variety of works in experimental psychology according to which the absence or low levels of time pressure can be associated with positive negotiation results in the presence of elements of complexity."<sup>75</sup> Based on his findings, Pinfari

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*the Rationality Assumption from Law and Economics*, 88 CALIF. L. REV. 1051, 1057-58 (2000).

<sup>72</sup> MARCO PINFARI, PEACE NEGOTIATIONS AND TIME: DEADLINE DIPLOMACY IN TERRITORIAL DISPUTES (2013).

<sup>73</sup> See *id.* at 1-10 (discussing prior work in diplomatic studies in relation to deadlines).

<sup>74</sup> *Id.* at 57-61, 138-39. He does not have sufficient power to apply regression analyses and look for statistical significance, and instead uses a fuzzy set methodology.

<sup>75</sup> *Id.* at 138. Pinfari cautions wariness, however, about uncritical application of lab-based insights to international negotiations, showing how one result suggested by a lab experiment was not in fact born out in one of his case studies. See *id.* at 143-44.

suggests that “[d]iplomats, mediators, and any actor involved in conflict resolution efforts should thus be aware of the fact that little evidence exists to suggest that [artificially imposed] pressure results in durable agreements in complex negotiations.”<sup>76</sup> His conclusions are in line with what a French diplomat recently tweeted in relation to on-going negotiations with Iran: “Instead of dramatizing a so-called ‘deadline’, let’s get the substance of a possible agreement right. Much more important.”<sup>77</sup>

Although supportive of the relevance of behavioral principles to the international use of deadlines, there is nonetheless considerable grounds for doubt. Case studies may be a matter of looking under the light and in any event may support alternative causal hypotheses. Perhaps deadlines have played an entirely rational role in the Chemical Weapons Convention. The innovative agreement could stem not from open minds occasioned by the absence of deadlines, but rather by good negotiators taking sensible advantage of additional time; the entry-into-force date may have served as a rational focal point for President Clinton and the Senate; and the U.S. failure to destroy its chemical weapons by the compliance deadline may have been due not to an initial planning fallacy, but rather to strategic non-compliance or a rational change in priorities. I read the evidence as solidly supporting a behavioral account in relation to the second and third issue (and unclear on the first issue), but I cannot conclusively rule out these alternatives. Pinfari’s results are similarly vulnerable to alternative explanations. For example, low time pressure could correlate to better outcomes in peace negotiations because better negotiators and mediators happen to prefer patient approaches. Alternatively, the correlation could be explained simply by the objective benefits that come with more time for deliberation.

Much more research is needed to fine-tune our understanding of how deadlines operate in the international legal context and the ways in which behavioral principles are applicable. The particulars matter, and the evidence on the particulars is less than ideal. For example, it is hard to know how strongly the laboratory-grounded finding that deadlines subjectively close minds translates to actors working with long-term rather than immediate deadlines. Similarly, while the planning fallacy is well-supported, there is less strong evidence about how best to overcome it or harness it. The increased use of well-structured intermediate deadlines seems like a mechanism with promise, but more work would be useful in assessing this. As another example, some international legal deadlines may trigger salience biases and draw outsized attention to issues (relative to what

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<sup>76</sup> *Id.* at 150.

<sup>77</sup> Gérard Araud, Twitter (March 29, 2015, 4:54 PM EST), <https://twitter.com/GerardAraud/status/582330027053809664?lang=en>.

we would rationally expect) by states and non-state actors as well.<sup>78</sup> Case studies, quantitative observational work, and perhaps some elite-focused experiments would help elucidate these issues. Especially in the absence of field experiments – and these are functionally impossible in most real-world international legal contexts<sup>79</sup> – we must operate against a backdrop of uncertainty about causal mechanisms and continually update our best understandings in light of additional evidence.

### C. *Deadlines, Diplomacy, International Law*

Proof of the degree and manner of relevance of domestic research on deadlines to international legal practice remains modest. Yet the question of relevance is one of immediate practical importance. If deadlines tend to trigger a subjective closing of the minds of international negotiators, for example, then perhaps negotiators should undertake extra efforts to avoid setting deadlines early on (even at the cost of shorter ones down the road). If deadlines make the costs of not ratifying a treaty unusually salient, then perhaps important treaties should tie more consequences to ratification by particular dates. If the planning fallacy holds for international actors, then we should predict considerable non-compliance with international legal deadlines despite good faith intentions. If states are susceptible to rate persistence, then negotiators, executive actors in international organizations, and non-state actors might want to strive to structure compliance regimes to take advantage of this susceptibility. The more international actors exhibit behavioral tendencies, the more these tendencies should matter for the design and implementation of timing mechanisms.

Given uncertainty, what should practitioners take into account in setting deadlines? The fields of law and diplomacy have traditionally taken different approaches to these questions. Work in international law says very little about deadline design generally. By contrast, scholarship in diplomatic studies, including scholarship aimed at practitioners, has historically included considerable discussion of negotiating deadlines. This discussion tends to identify all kinds of considerations, including empirical

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<sup>78</sup> Cf. Galbraith, *supra* note 6, at 353-355 (explaining how the greater ratification rates of optional protocols, as opposed to legally equivalent opt-in clauses, might be explained by salience biases on the part of states or of advocacy groups).

<sup>79</sup> While some forms of field experiments may be plausible in international law, see Adam Chilton & Dustin Tingley *Why the Study of International Law Needs Experiments*, 52 COLUM. J. TRANS. L. 176, 233-38 (2013) (giving examples of a field experiment using random assignment of electoral monitors and another email-based audit study of firms providing transnational incorporation services), the challenges of running power-generating experiments on actual diplomatic negotiations, the entry into force of treaties, or many forms of international legal implementation seem effectively insurmountable.

research in other contexts,<sup>80</sup> but to avoid drawing strong conclusions.<sup>81</sup> Importantly, even where this work does offer specific suggestions based on behavioral research, as with Pinfari's work, the focus is exclusively on *negotiating* deadlines, rather than on the kind of deadlines that negotiators might put into agreements.

More awareness about empirically grounded insights from other contexts on deadlines and bounded rationality would be valuable to international practitioners, even though considerable uncertainty remains about the applicability of these insights. This awareness should be holistic in nature. Whether diplomats, international lawyers, or others, practitioners engaged in negotiations can potentially benefit not only from insights regarding negotiating deadlines, but also from insights regarding optimal deadline design for decision-making and project-completion purposes. After all, in the international legal context it is typically negotiators who set compliance deadlines (and most other forms of deadlines as well). Conversely, international actors involved in meeting deadlines – whether diplomats, international lawyers, or others – could benefit from awareness of how bounded rationality might have affected the choices of negotiators in setting the deadlines as well as in thinking about how bounded rationality might affect choices related to compliance with these deadlines.

In making this call for awareness, I do not mean to equate international diplomacy and international law. As an empirical matter, diplomatic deadlines and international legal deadlines may trigger different behavioral effects on actors – for example, to the extent that law makes a deadline for opportunity clearly a firm one, actors might feel greater loss aversion to missing the deadline. Moreover, there is an important normative difference between deadlines for political decision-making and deadlines for legal compliance, as missing the latter kind of deadline puts a country in violation of its international legal obligations. Yet to the extent that behavioral tendencies cut across these differences, practitioners on both the diplomacy side and the legal side should take them into account among the many other factors that inform decision-making.

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<sup>80</sup> E.g., IKLÉ, *supra* note 1, at 72-80 (posing a number of considerations in relation to deadlines, although relying heavily on examples from past international negotiations); ZARTMAN & BERMAN, *supra* note 2, at 191-199 (drawing on a variety of sources in discussing deadlines); Dean Pruitt, *Strategy in Negotiation*, in KREMENYUK, *supra* note 2, at 89; cf. ROGER FISHER ET AL., *GETTING TO YES* 141 (1991) (approaching negotiations as a unitary field across domestic and international contexts and discussing practices on deadlines in labor negotiations).

<sup>81</sup> E.g., ZARTMAN AND BERMAN, *supra* note 2, at 194 (concluding rather unhelpfully that “[d]eadlines tend to facilitate agreement, lower expectations, call bluffs, and produce final proposals, but also lead negotiators to adopt a tough position that will make them look good if – and therefore when – the negotiations fail”).

Going beyond awareness, I also think practitioners should rely on insights developed from domestic research on bounded rationality in setting and responding to deadlines, at least to a modest extent. An easy case is where a practitioner is choosing between options which have different implications from a behavioral perspective but otherwise look equally good. Madeline Albright's testimony on the Chemical Weapons Convention is an example. She could have framed ratification by the entry-into-force date as a gain for the United States, or she could have framed non-ratification by that date as a loss for the United States. If framing does not matter, than either approach should sound equally persuasive, but if framing can trigger loss aversion, then the latter approach would do more to accomplish her goal of U.S. ratification. Therefore, she should have – and did – frame non-ratification by the entry into force date as a loss for the United States.

Other situations will require more complicated calculations. Consider, for example, the issue of how to set optimal compliance deadlines. On the one hand, projections about when compliance can be achieved are likely to be over-optimistic. But if deadlines are too early, then they can no longer serve as a useful boundary for separating actors striving in good faith from actors who are willfully non-compliant. Moreover, once these deadlines are past, even good faith actors may be less motivated to achieve compliance, since their default has become non-compliance. On the other hand, deadlines help motivate action, especially since “work expands so as to fill the time available for its completion.”<sup>82</sup> If deadlines are set to compensate for the planning fallacy and to accommodate the slowest actors, then actors who could comply more promptly may nonetheless wait until the deadlines and the least capable actors may wait too long to get started. These kinds of calculations will necessarily be heavily context-dependent, but there should be a thumb on the scale in favor of design choices that accord with behavioral insights.

### III. CONCLUSION

Where the use of deadlines and other procedural design mechanisms are concerned, scholars of both diplomacy and international law should consider the relevance of existing empirical research in psychology and behavioral economics. The case study of the Chemical Weapons Convention offered in this chapter shows how this research might help explain features of international legal design and improve it going forward. The discussion here is only a tentative starting point. Much more work is needed to establish just how relevant the various strands of this research are

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<sup>82</sup> *Parkinson's Law*, *The Economist* (Nov. 19, 1955), available at <http://www.economist.com/node/14116121>.



and, more generally, how deadlines can best be used in international legal practice. In the meantime, practitioners would do well to consider what principles of bounded rationality suggest about the effective use of deadlines.