

International Relations and the Psychology of Time Horizons¹

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Theories of international relations have often incorporated assumptions about time horizons—a metaphor for how heavily actors value the future relative to the present. However, they have not built on a growing body of experimental research that studies how human beings actually make intertemporal tradeoffs. In this article, we present relevant findings from psychology and behavioral economics, notably those of “construal level theory” (CLT), and explore these findings’ implications for three classic questions—international cooperation, preventive war, and coercion. We argue that experimental evidence regarding how people discount future value and construe future events challenges the conventional wisdom on international cooperation. We further maintain that CLT helps explain a longstanding puzzle about preventive wars—namely why they are often initiated too late by declining powers but too soon by rising competitors. Finally, we rely on these findings to explain who wins coercive contests and why compellence is often, but not always, harder than deterrence. Scholars of international relations often embed in their theories crucial assumptions about time horizons, and this article seeks to show what differences it makes if we ground these assumptions in what we know about actual human decision making.

Time horizons are key drivers of action in international politics. The concept has, for good reason, been commonplace since Axelrod (1984) introduced “the shadow of the future.” However, scholars of international relations have proceeded in seeming ignorance of findings, from psychology and behavioral economics, exploring how people actually make intertemporal tradeoffs.² Whether informed by rational choice or cognitive psychology, whether focused on individuals or states as the primary unit of analysis, theories of international relations presume that actors reason the same way about temporally distant and near events, even if they discount the former more heavily. A wealth of experimental evidence, however, suggests that this presumption is wrong: People think about far-off events in more abstract

terms than they do about near-term events, and this is crucial for how and whether they weight costs, plan for the future, and engage in wishful thinking. To the extent that theories’ assumptions about time horizons diverge from empirical findings, they are likely to prove problematic. We draw on this experimental literature to challenge existing approaches to classic questions in international relations and to offer new answers to longstanding puzzles.

In this article, we first present the usual approach to intertemporal decision making in studies of foreign policy and international politics. We then summarize the relevant experimental literature, focusing especially on those findings—most notably construal level theory (CLT)—that have not featured in the sparse international relations literature. Third, we elucidate the implications of these findings for three core research programs: when states cooperate; how states cope with changes to the distribution of material power; and how states use force to coerce adversaries. Fourth, we explore some challenges of moving from laboratory settings to the “real world” of foreign-policymaking, and some of the particular limits of existing CLT studies. Scholars of international relations, we suggest in conclusion, would be well advised to ground their assumptions about

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² This is true even of recent work invoking time horizons as an explanatory variable. See Barkin (2004); Toft (2006); Krebs (2008). An important exception is Streich and Levy (2007).

intertemporal tradeoffs in what we know about actual human decision making.

Temporal Discounting in International Relations

An actor's time horizon describes how much value she assigns to future outcomes and thus how willing she is to sacrifice present utility for future gains. Time horizon length is constituted by three components. First, an individual's "discount factor," which measures how much weight she gives to future units of time and thus describes her general tendency toward (im)patience.³ The less the future weighs in an actor's present decision making, the smaller her discount factor and the shorter her time horizons. Second, the subjective value of the good or event in question. The greater the future expected gain or loss, the greater value an individual places on the future relative to the present. Even an individual with a high discount factor will not forfeit present utility to achieve an end to which she assigns little value. Third, how far into the future an individual looks. Even if an individual has a high discount factor and highly values some expected good, she cannot have long time horizons if she does not think beyond tomorrow.

Whether actors' time horizons are long or short figures centrally, if sometimes only implicitly, in major theoretical approaches to international politics. Though these theories expect the length of actors' time horizons to affect calculations of utility, they do not expect time-horizon length to affect how individuals make decisions. Thus, structural realists and institutionalists have disagreed about the implications of long time horizons, but both presume that state leaders discount time at a constant rate and that they focus on the same attributes of a good or event without regard to temporal distance. Experimental research, however, demonstrates that these presumptions are problematic. Discount factors change as scenarios become more temporally distant: An item's subjective value drops more rapidly in the near term than in the more distant future, and the initial decline occurs faster than the discounted utility model would expect—a phenomenon known as "hyperbolic discounting" (Streich and Levy 2007). Perhaps more importantly, individuals' mental focus changes as time horizons lengthen: People confronting long-term challenges and opportunities systematically underweight the costs of action in favor of its desirability and thus are prone to wishful thinking.

Scholarship that has otherwise effectively applied psychological findings to international relations has also failed to consider how temporal perspective can affect choice. This even applies to research informed by prospect theory, in which temporal factors shape individuals' perceptions of whether an outcome is seen as a loss or a gain, and thereby their risk

orientation and behavior. An individual's propensity for risk is, according to prospect theory, partially dependent on her "reference point" (Levy 2000:202–203).⁴ If, for example, an individual designates the future as her reference point and expects her status to improve, attaining anything less would be perceived as a loss, and prospect theory expects her to be risk-acceptant. Although prospect theory thus incorporates temporal considerations into present decision making, it does not predict risk orientation to be affected by whether the individual's reference point lies in the near or distant future. Levy's (1992:301) observation from 20 years ago remains apt: How state leaders make "trade-offs between immediate and future risks... raises a difficult theoretical problem and one which has not received much attention in the literature on prospect theory." However, CLT provides considerable evidence that framing an event as "near" or "far" influences decision making, and those findings often yield expectations for international relations at odds with prospect theory.

The Psychology of Intertemporal Tradeoffs

One might think individuals would always be mindful of the probabilities of achieving a given outcome, but, as their time horizons lengthen, they exhibit similar confidence in the likelihood of a positive outcome regardless of whether the task depends on skill or chance (Trope and Liberman 2003:411). One might think individuals would balance risk and payoffs the same way regardless of whether their time horizons are short or long, but in fact they prefer high-probability, low-payoff gambles in the near term and low-probability, high-payoff gambles in the long term (Sagristano, Trope, and Liberman 2002). One might think individuals would evaluate temporally near and distant alternatives using the same criteria, but in fact, as temporal distance grows, they focus less on the feasibility of a given course of action than on the desirability of the outcome (Liberman and Trope 1998).

Construal level theory is an increasingly prominent psychological approach that explores how distance—spatial, social, and temporal—shapes human decision making and thus sheds light on these seemingly paradoxical behaviors (Liberman and Trope 1998, 2008; Sagristano et al. 2002; Trope and Liberman 2003, 2010; Eyal, Liberman, Trope, and Walther 2004). The research program has flourished in its home discipline: Since 2003, social psychology's top-cited publication, the bi-monthly *Journal of Personality and Social Psychology*, has featured about two articles per year employing a CLT framework. In the past decade, the psychology of temporal construal has merited two review articles in that field's top journals (Trope and Liberman 2003, 2010) as well as an extensive review in *Science* (Liberman and Trope

³ Some treat this as synonymous with time horizons; see Barkin (2004:367).

⁴ For reviews of prospect theory and IR, see Levy (1992); Mercer (2005).

2008). Its core findings have been reproduced with research subjects ranging from college students to business leaders and upheld in experiments assessing participants' evaluations of objects like money and merchandise, and their judgments of people and social interactions.

Agnostic about the origins of time horizons, CLT starts with the intuitive premise that, *ceteris paribus*, people have greater difficulty ascertaining reliable details about temporally distant events and actions. Given that people have limited cognitive resources, they simplify the task of assessing temporally distant, necessarily unclear events or actions by relying on pre-existing mental constructs, or abstractions. Abstract thought makes possible the traversal of psychological distance and, like other heuristics, facilitates decision making under conditions of cognitive complexity. Abstract, or "high-level," construals are general, decontextualized, and focused on the reasons why an action was, or will be, carried out or an event did, or will, occur. The less temporally distant an individual's focus, the more "low-level" her construal of an event or action. Low-level construal is detail-oriented, concrete, and more concerned with how an action will be carried out or an event will occur (Vallacher and Wegener 1985, 1989; Liberman and Trope 2008:1201–1202). Abstract representations emphasize ends, increasing the salience of an actor's primary goal, while concrete representations highlight means (Trope and Liberman 2000:877–878).⁵ The link between perceived distance, cognitive uncertainty, and mental abstraction is powerful: Telling people that a person or object is spatially or temporally distant prompts abstract construal even if concrete information is provided (Bar-Anan, Liberman, and Trope 2006; Fujita, Henderson, Eng, Trope, and Liberman 2006). Informing someone that an event is unlikely to occur leads them to construe it more abstractly than a likely event, even if all other details about the two events are the same (Wakslak, Trope, Liberman, and Alony 2006).

According to CLT, greater temporal distance results in unwarranted optimism about the future effects of one's actions. When actors contemplate the long term, they construe events abstractly, focusing on "superordinate" goals at the expense of "subordinate" processes—on "why" rather than "how," on the desirability of their ends rather than the challenges entailed in reaching them, and on the benefits of distant action rather than the costs. Moreover, because conceptions of distant future events are less complex and more prototypical, ambiguous information is more easily assimilated into existing mental categories, reinforcing confidence in pre-existing theories and thus the tendency toward wishful thinking (Liberman and Trope 2008:1204). Thus, in lottery experiments in which outcomes are uncertain—a given choice may lead participants to gain, lose, or come out even—individuals

discount potential losses more heavily than potential gains the longer those outcomes are delayed (Shelley 1994). They also then prefer choices with large potential payoffs but low odds to safe bets with relatively meager rewards; in contrast, when outcomes are immediate, lottery participants judge the attractiveness of a given choice more by the odds of winning than by the magnitude of the possible payoff. People also judge distant threats as less likely to materialize than distant opportunities, and they gain confidence in their ability to "manage" more distant threats when asked to select business strategies for hypothetical corporations (Highhouse, Mohammed, and Hoffman 2002). When time horizons are short, individuals engage in concrete construal, which presumes the task's desirability and prompts investigation of its feasibility. Individuals with short time horizons are more receptive to revising their subordinate goals in line with available information about the feasibility of their plans, reducing the bias toward optimism (Fujita, Eyal, Chaiken, Trope, and Liberman 2008). These effects may be particularly pronounced among decision makers guided by an overarching framework, those Tetlock labels "hedgehogs." He finds that the performance gap between hedgehogs and eclectic-thinking, modest foxes increases further when they are asked to make predictions about the distant future and that the former are especially (and excessively) confident in their long-range projections (Tetlock 2005:82).

This pattern of cognition—balanced assessment of the feasibility of plans to be implemented in the near future, contrasted with over-optimism and an abstract focus on desirability when considering the more distant future—was apparent among top US decision makers prior to the 2003 Iraq War. While CLT cannot explain the origins of individuals' or collectives' foreign policy goals and thus is not sufficient to explain the invasion of Iraq, it lends insight into crucial flaws in how Iraq War policy plans were formulated and executed, especially the marked difference between top officials' attention to preparations for combat and their relative neglect of "postwar" operations. President Bush and his advisers were active participants during the 16 months that plans for combat were being formulated (Bensahel, Olicker, Crane, Brennan, Gregg, Sullivan, and Rathmell 2008:236–237). The same individuals, however, were reportedly disengaged during briefings on prospective postwar operations—even though the very rationale for war hinged on the success of these operations. They were satisfied with the "rosy, pie-in-the-sky" assessments of the invasion's aftermath that Undersecretary of Defense for Policy Douglas Feith presented (Woodward 2006:131–134). Chronic overconfidence cannot explain this outcome, since then leading officials should have been as disengaged from war-planning as they were from "stability operations." Nor can it be attributed to neoconservative ideology: Neoconservatives placed the *most* weight on long-term goals, like democratizing Iraq, and thus they should have been *most* attentive to and

⁵ Some psychologists do not consider "means-ends" to be synonymous with "concrete-abstract"; see Kozak, Marsh, and Wegner (2006:551).

TABLE 1. Construal Level Theory Expectations for Decision Making Regarding Near vs. Distant Events

<i>Near</i>	<i>Distant</i>
<i>Construal</i>	
Concrete	Abstract
Complex	Simple
Inductive, effortful	Deductive, theory-based
Focus on means (how)	Focus on ends (why)
<i>Implications</i>	
Evaluation of future plans based on feasibility of means	Evaluation of future plans based on desirability of ends
Little optimism bias	Substantial optimism bias
Greater fear of errors of commission	Greater fear of errors of omission

pragmatic about the challenges of postwar state-building. Administration officials' intense involvement in short-run military planning, their disinterest in planning for the subjectively distant postwar period, and their unwarranted optimism regarding the postwar situation are all consistent with CLT.⁶

The lack of planning for postwar Iraq, especially among neoconservatives, aligns with CLT's claim that time horizons have paradoxical effects on planning. Even if people care about the future—that is, even if they have long time horizons—they are not likely to prepare for it, because they are focused on the big picture, on the why rather than the how. Those who care less about the future—that is, individuals with shorter time horizons—are not as motivated to think far ahead. However, when given the opportunity or compelled by circumstances to evaluate future plans, they should be critical of assumptions that ignore contextual details, and they should be more sensitive to overly optimistic premises, because they are primed to focus on feasibility (Lieberman and Trope 1998).⁷ It is not, however, always better to think concretely about the future: Redoubling efforts at the operational level can lead actors to lose sight of their strategic goals—to the confusion of priorities and the misallocation of scarce resources.

Construal level theory research has also shown that, as temporal distance increases, people believe they would have greater regrets if something undesirable happened because they did *not* act than if something undesirable happened because they *did* act. In other words, when presented with distant threats and opportunities, individuals are disposed to (vaguely considered) action, because they fear errors of omission more than errors of commission (Leach and Plaks 2009). Optimism bias produces excessive confidence that actions will yield beneficial consequences (or at least mitigate the worst ones), even if the foreseen outcome is unwelcome, such as the outbreak of war. For a summary of CLT's expectations for decision-making, see Table 1.

⁶ For more extensive engagement with alternative explanations, see Rapport (2011).

⁷ On priming different levels of construal, see Trope and Liberman (2010:445–446).

President Franklin Delano Roosevelt's approach to Europe before and after the Munich Crisis of 1938 is more consistent with CLT than with a decision-making model premised on either rationality or prospect theory. While FDR was aware by 1936 that events on the Continent were trending toward war, his response prior to September 1938 was to “experiment with evident enthusiasm” and even pursue seemingly contradictory policies—for instance, planning to “quarantine” belligerent powers while simultaneously proposing an international peace conference involving those same states (Farnham 1997:64–65, 70–72, 80). While policy experimentation in the face of uncertainty is hardly irrational, it is hard to square Roosevelt's decision-making process with rationality. Farnham (1997:80–81) concludes that his policymaking did not involve “carefully weighing the advantages and disadvantages of alternative policies and making trade-offs... Moreover, there is no indication that he attempted to deal with uncertainty by calculating outcome probabilities.” CLT expects “enthusiasm” for action, unaccompanied by the careful weighing of tradeoffs or probabilities of success, when time horizons are long. As Farnham notes, the Munich Crisis did not alter the objective security situation facing the United States, and Roosevelt's estimates of neither the probability nor the costs of a European war increased meaningfully. What changed was his temporal focus. Prior to Munich, Farnham writes, Roosevelt had been primarily concerned with “the *eventual* implications for the United States should an unappeasable and aggressive Hitler prove successful in Europe.” Afterward, he came around to his ambassadors' consuming fear of the “disastrous *immediate* consequences” of war (Farnham 1997:120–121, 125; emphasis added). Before Munich, Roosevelt had been operating with the imperative, “do something,” as CLT would predict.

If rationality falls short, so does prospect theory. Roosevelt's decision-making style and risk orientation *after* Munich are more consistent with CLT. As his time horizons shortened and the near-term costs of war became salient, FDR abandoned half-considered experiments. He not only became intensely concerned with the concrete “how” of policy—how to sustain Britain despite the public's worry about a slippery slope to war, how to design aid packages that Congress might pass, how to create an incident that might move a reluctant nation to war—but he approached these thorny problems with unusual method and discipline: “before settling on a diagnosis [he now] consulted a wide range of opinion from an impressive variety of sources” (Farnham 1997:167).⁸ Nor can prospect theory account for Roosevelt's apparent risk aversion after Munich. Foreseeing German gains at America's expense, he should, according to prospect theory, have been risk acceptant. But, even as the United States gradually deepened its commitment to the Allies, those steps were wary and reversible, and, to the frustration of

⁸ Thanks to a reviewer for pressing us on this point.

his more hawkish political advisers, Roosevelt showed great respect for the political strength of non-interventionism. Clare Booth Luce acidly observed that “every great leader had his typical gesture—Hitler the upraised arm, Churchill the V sign. Roosevelt? She [Luce] wet her index finger and held it up,” imitating Roosevelt testing the political winds (Dallek 1979:336). Enthusiastic experimentation gave way to a “cautious crusade” (Casey 2001) that prospect theory would not anticipate.

Finally, CLT helps explain the phenomenon of hyperbolic discounting—that is, that people discount value more precipitously than classic models assume.⁹ As a result, they display a lack of impulse control and can even reverse their preferences; when preferences are unstable over time, the principle of transitivity, which lies at the core of rationality, does not hold. Why would discount factors change with temporal distance? While some have suggested evolutionary mechanisms (Ainslie 2001:45–47), CLT offers a more proximate, falsifiable explanation. Because the time one must wait to receive a good is a secondary, low-level consideration not central to the mental representation of the good itself, CLT expects it to weigh more heavily in the near future and to have less impact on individuals’ evaluations as time delays increase (Trope and Liberman 2003:414). Thus, as a good becomes more temporally distant, its perceived value drops rapidly and then plateaus.

That people reason differently about phenomena when framed in certain ways is familiar to students of international relations through prospect theory. That theory’s focus on gains and losses, however, lacks a strong temporal dimension. It would not expect an individual’s preferences to shift when possible outcomes are delayed but when the potential payoffs, and the odds of those payoffs, remain constant—yet that is what CLT studies have found. Furthermore, prospect theory explains risky gain-seeking behavior by positing that people overweight low probabilities. However, studies of intertemporal choice have found that as temporal distance grows under conditions of uncertainty, people pay less attention to probability and focus instead on the size of the potential gains. In other words, with long time delays, it is not that people overemphasize probability considerations; rather, they overlook them (Sagrignano et al. 2002:368–372). Most importantly, prospect theory states that people are prone to risky actions to avoid losses while they tend to be cautious in the pursuit of gains. While some studies have, in line with prospect theory, found that gains are discounted more rapidly than losses over time (the “sign effect”), they are of limited utility for students of international politics because they treat future outcomes as certain.¹⁰ When outcomes are uncertain

and probabilistic, as they normally are in global politics, CLT research has found the opposite: The distant prospect of gains encourages optimism and risk-taking, while the distant prospect of losses has less psychological and behavioral impact (Sagrignano et al. 2002; Eyal et al. 2004).

Implications for International Relations

What implications do these findings have for international relations? We focus here on three questions that have long lain at the center of international relations scholarship—international cooperation, preventive war, and military coercion. Time horizons have explicitly featured in only the first of these literatures, but assumptions about how actors make intertemporal tradeoffs figure prominently in all three. Drawing on these experimental findings, we challenge old verities, suggest new explanations, and elucidate enduring puzzles in all three research programs. We offer the illustrative examples in this section not as tests of CLT, nor as proof that psychological insights alone account for specific outcomes, but rather as demonstrations of how CLT might be used to make sense of international politics.

International Cooperation

When and why do states in international anarchy cooperate? Assumptions and claims about the length of states’ time horizons have deeply shaped scholarly debates on this question. Many have argued that the uncertainty of anarchy impedes cooperation and that lengthening states’ time horizons, through mechanisms including the design of international institutions, promotes cooperation. This was Axelrod’s (1984) seminal contribution, and it has informed the large body of work modeling international politics as an iterated Prisoner’s Dilemma (Keohane 1984; Oye 1986). Fearon (1998), however, has persuasively argued that, while long time horizons facilitate enforcement, they complicate bargaining, as states have incentives to hold out for a better deal. CLT challenges both approaches to cooperation. It suggests that cooperation theorists are right about the beneficial impact of long time horizons but for the wrong reasons and that, contra Fearon, long time horizons are actually conducive to productive bargaining. It further suggests that strong enforcement institutions are unlikely and unnecessary at best and counterproductive at worst.

Both the original wave of cooperation theorists as well as Fearon embedded standard discounted utility functions into their models. Others have demonstrated that quasi-hyperbolic discounting challenges Axelrod’s optimistic conclusions, because the value of future gains falls so precipitously (Streich and Levy 2007). Quasi-hyperbolic discounting also poses a challenge to Fearon’s less sanguine account: Because states discount future gains rapidly, they are not likely, contra Fearon, to abstain from cooperation and prolong negotiations in the hope of

⁹ For an excellent review, see Frederick, Loewenstein, and O’Donoghue (2002:360–362, 366–368).

¹⁰ In “sign effect” studies, participants are told whether an occurrence will yield a gain/loss and how big the gain/loss will be (see, for example, Thaler 1981). CLT studies interact sign with uncertainty on both dimensions.

receiving larger future gains under a more favorable arrangement. Quasi-hyperbolic discounting suggests that time horizons are rarely long enough to generate the bargaining impasses that Fearon predicts. However, while quasi-hyperbolic discounting is useful for modeling infinitely iterated games,¹¹ it exaggerates the extent to which actors' time horizons are short. In fact, hyperbolic discounters virtually stop discounting payoffs in the distant future (Streich and Levy 2007:210–211). This is in line with CLT, which predicts that subordinate considerations—for example, how the passage of time affects the value of some desired good—weigh less on decision making when people consider the more distant future.

A CLT perspective thus suggests different conclusions regarding existing models of international cooperation. In calculating the expected utility of cooperation, actors in these models are assumed to weigh equally the desirability of an outcome (the value of future gains) and its feasibility (the likelihood of achieving those gains). CLT research, however, finds that the two are weighted differently as a function of time: Greater weight is attached to an outcome's feasibility when time horizons are short and to its desirability when time horizons are long.

From a CLT perspective, long time horizons are conducive to international cooperation, not because they make enforcement less problematic, but because they promote productive bargaining, contrary to Fearon's expectations. Experimental evidence suggests that those whose focus is more general and abstract—the high-level construal associated with long time horizons—are more willing to offer reciprocal concessions than those who focus on concrete, specific issues in negotiations—the low-level construal associated with short time horizons (Henderson and Trope 2009:411–412). Actors with long time horizons are attracted to deals with high payoffs even if the feasibility of enforcement is uncertain, and they are more willing to let the details of enforcement “work themselves out” over time. This is partly because they are less focused on the long-run costs of maintaining cooperation, and partly because they are relatively optimistic about the efficacy of their actions and assume they will eventually overcome any short-run inequalities in the distribution of gains. Actors with short time horizons focus on and haggle over the details of enforcement mechanisms from the start. They will be wary of even those deals with great potential payoffs unless enforcement seems feasible, and they will embrace deals in which effective enforcement is easily achieved, even if the ultimate payoff is not great. In terms of Fearon's model, actors with short time horizons put *more* weight on the delta term, which represents the ease/difficulty of detecting cheating. This implication of CLT also runs directly counter to prospect theory, which expects more risk-acceptant

behavior, and more downplaying of the costs of cooperation, when actors fear losses—not because they look forward to gains.

Enforcement institutions that emerge out of negotiations among actors with long time horizons are thus likely to be vague and ill-defined, *pace* the expectations of most cooperation theorists. They have seen intrusive and demanding international institutions as an important means of allaying deep-seated fears of cheating: Only such institutions can lower transaction costs, monitor compliance, raise the costs of cheating, and equally distribute gains. Only such well-calibrated institutions can allow suspicious and vulnerable states to take the long-run gains of cooperation sufficiently into account so that, given the institutional context, those gains outweigh the possibility of receiving the sucker's payoff (Keohane 1984, 1989; Keohane and Martin 1995). This is true of Fearon (1998:280) as well, whose model expects that whether an agreement is enforceable, and thus whether serious negotiations take place, hinges on the efficiency of monitoring technologies and punishment mechanisms.

Construal level theory, however, suggests that somewhat elusive institutions have distinct benefits not only because actors can more easily accede to their terms, but also because they more effectively facilitate long-run cooperation, especially in the international arena. Recent work has argued that incomplete contracts facilitate cooperation among actors with bounded rationality; agreements that lay out general principles and defer the negotiation of intricate details, even those crucial for enforcement, help actors cope with complex, fluid environments and lower the startup costs of cooperation (Cooley and Spruyt 2009). A CLT perspective adds that vague institutions have the advantage of priming actors to have long time horizons by discouraging a fixation on the nettlesome details and costs of initial startup. Experimental research shows not only that long time horizons are conducive to high-level, abstract construal, but that high-level abstract construal, to which we expect that vague institutions give rise, is conducive to long time horizons and thus to diffuse reciprocity (Henderson, Trope, and Carnevale 2006; Liberman and Trope 2008:1204). Seeking to compel actors to focus on exacting questions of institutional design and enforcement will counterproductively heighten conflict by shortening their time horizons. Keohane (1984:257–259) warned that flexible institutions would hinder credible commitment and cooperation. Both bounded rationality and CLT perspectives conclude otherwise. CLT suggests that such institutions help maintain the parties' abstract focus on the future, draw them to the attractive prospect of long-term gains, and lead them to overlook the costs of cooperation.

Construal level theory thus arrives at a paradox: Those actors who most need rigorous enforcement institutions and who are most inclined to them are also those least likely to achieve cooperation in the first place, while those who are most likely to reach a

¹¹ Because many hyperbolic discount functions do not converge, a quasi-hyperbolic discount function is necessary to calculate the payoffs in an infinitely iterated game.

successful negotiated outcome are also those who least need, and are least inclined to, such institutions. Whereas Fearon (1998:285) expects that successful bargaining outcomes and strong enforcement institutions go hand in hand, CLT implies that where time horizons are long enough to facilitate bargaining, enforcement institutions are likely to be weak. Low-construal concrete thinkers—those with short time horizons—are disposed to worry about the enforceability of any agreement and thus need powerful institutions to help them take the cooperative leap; while they are mentally well suited to design such concrete institutions, their focus on detail makes it unlikely that they successfully negotiate an agreement. High-construal, abstract thinkers—those with long time horizons—worry little about the details of enforcement, focus more on the payoffs of cooperation, and thus hardly need powerful institutions to sustain future cooperation.

Preventive War

Carr (1951:208–209) famously placed the problem of effecting “peaceful change” at the center of international theory. Declining powers eager to retain their dominant position sometimes wage war to prevent the otherwise inevitable changing of the guard. Scholars have explored what regimes are likely to launch preventive wars and how shifts in power differentials conduce to or impede war. But they have left unexplained two puzzles. First, it is generally presumed that declining powers wait until quite late to initiate war, until their power advantage over a rising power is small. Would it not be rational for declining powers to intervene far earlier to prevent challengers from nearing power parity, fighting when their advantages are relatively great?¹² Second, if states do not launch preventive wars early, why are they willing to launch preventive wars late, when they are more costly? Gilpin (1981:191) recognized that declining states had several policy options, of which preventive war was only one—alongside retrenchment and renewal—though he deemed it often the “most attractive.” When do states opt for preventive war and when for an alternative? We do not know, even though Levy (1987:85; emphasis added) long ago called this “the important theoretical question.”

The psychology of time can explain declining states’ reluctance to undertake early preventive war and their willingness to bear the costs of war later. First, because the value of the future falls off more rapidly than rationalist models expect, the challenger’s rise seems less costly when the moment of transition is relatively far off. As a result, the costs of war now for the dominant power appear high relative to the costs of standing pat, even though war now would be waged on relatively favorable terms. As the moment of transition draws near, however, that outcome weighs more heavily in present deci-

sion making, and while the objective costs of losing primacy have not changed, the subjective costs have. As time horizons shift, so do preferences, and thus declining powers fight preventive wars later, and on less favorable terms, than would otherwise be expected.

Second, when the anticipated change in the distribution of power is uncertain and far off, CLT expects a presently dominant state to be disposed toward action, since it fears errors of omission more than errors of commission. However, it is also expected to have excessive confidence in its capacity to prevent, or mitigate, the feared negative outcome. Thus, while a declining power should act to maintain its position, its decision makers should not carefully consider multiple courses of action or make painful or costly choices, like retrenchment or renewal, let alone war. Moreover, because temporally distant events are construed abstractly, a declining state facing the prospect of a far-off transition should not prepare rigorously for multiple contingencies in case its preferred policy fails. As the power transition nears—that is, as time horizons shorten—the optimism bias should fall away, and policymakers should re-assess their presuppositions. In line with prospect theory, officials in the declining state should then take on substantial risks to prevent imminent losses. The result is war under conditions that are, for the declining power, less than ideal.¹³

This pattern of outcomes is consistent with neither prospect theory nor rational choice. According to prospect theory, a declining state facing an expected power transition should be willing to run substantial risks and take on substantial costs to prevent that prospective loss, yet declining states go to lengths to avoid preventive war until relatively late in the game.¹⁴ Alternatively, delaying war might be rational for three reasons, though we find such explanations wanting. First, and most straightforwardly, it is not irrational for risk-averse state leaders with short-to-moderate time horizons to make some future concessions to avoid the immediate costs of an inherently risky venture like war—in blood, treasure, legitimacy, and domestic political capital (Powell 1999:132). However, even states with short-to-moderate time horizons are not always better off delaying war, since the costs of war increase over time as the rising state grows more powerful: War now with a weaker opponent is less costly than war later with a stronger opponent. Similarly, standing pat is not risk free, and the risk of losing a war only goes up as

¹³ As time horizons shorten, individuals prefer low-payoff, low-risk gambles to high-payoff, high-risk gambles. Preventive war falls into the latter category. However, unlike laboratory settings, in which participants are always presented with at least one safe, low-yield choice, declining powers in international politics often confront only costly and/or high-risk options as the power transition approaches (Levy 1992:293).

¹⁴ Levy (1992:302–303) suggests that if the risks of delay outweigh the risks of war, then prospect theory would expect a risk-acceptant declining state to opt for delay. However, it seems unlikely that preventive war would commonly, let alone systematically, be seen as the relatively safe bet.

¹² This important question is raised in Edelman (2011).

power parity approaches; even risk-averse leaders in a declining hegemon should find war now with the rising power more appealing than war later. Neither short time horizons nor risk aversion can account for the absence of early preventive war.

Second, a declining state might delay hostilities to gather information about its prospective opponent's goals and power and thereby perhaps avoid an unnecessary war (Powell 1996). The problem is that a challenger with limited aims cannot credibly commit to abstain from converting concessions into military strength and political influence in the future. Without such a credible commitment, declining states should fear that rising competitors will increase their demands as their power grows, that concessions will beget calls for further concessions.¹⁵ Due to this insoluble commitment problem, the declining power continues to have incentives to launch an early preventive war.

Third, a declining power might abstain from preventive war because it cannot prevent the challenger's ultimate rise. Countries prosper and stagnate for reasons endogenous to their development, resource base, and technological change. Early preventive war can slow a country's rise, but not alter its trajectory. If true, however, this renders the declining power's subsequent decision to opt for war even more puzzling, since the presumption that states can do little to forestall the inevitable applies as much, if not more, as the power transition approaches.

US policymaking with respect to China in recent years is consistent with CLT. While China's rise has been rapid and remarkable, it is not a "peer competitor" of the United States and will not be for some time: In short, the power transition remains, by most accounts, relatively far off (National Intelligence Council 2008). Although there has been considerable debate over whether the United States should lean toward engagement or containment of China, policymakers from both parties have pursued a consistent policy of engagement while in power (Friedberg 2005:12; Christensen 2006), and they have displayed a resilient faith that this policy will funnel China's rise so that it prefers integration into the existing international order—reflecting the predilection to action and the optimism bias typical of those with long time horizons. Indeed, in policymaking circles, there is no clear alternative to engagement, nor have there been standards clearly articulated by which one might judge engagement to have succeeded or failed—in line with CLT expectations for actors confronting far-off events. Of course short-term profit motives, rather than long-term strategic considerations, may be driving engagement. The test will come as power parity approaches. As time horizons shrink and as uncertainty decreases, construal should become more concrete, the opti-

mism bias should fade, policymakers should become more realistic about their prospects, and the loss of primacy should appear a real and costly prospect to American leaders. US decision makers are then likely to take substantial risks to prevent the power transition, and advocates of containment—if not more aggressive policy options—will grow more influential.

If declining powers' tendency toward inertia were rational, we would expect to see leaders engage in fine-grained calculations of the costs and benefits of retrenchment, renewal, and war; detailed plans of renewal drawn up, considered, and rejected; and authoritarian regimes opt more often for renewal and perhaps retrenchment, since the domestic costs of these courses of action are for them more limited. However, great-power decision making under decline and uncertainty accords more closely with the psychological account. Careful calculations of alternative courses of action are the exception, not the rule. While British leaders at the turn of the twentieth century, for instance, were acutely conscious of, and may even have exaggerated, their nation's growing financial limitations, they also avoided making difficult decisions on national security, refusing either to reduce British commitments abroad or to expand defense outlays. This was not a case of prudent, considered delay. Rather, Friedberg (1988:298) concludes, Britain's leaders pursued "a combination of treaties, appeasement, and wishful thinking" so that "the threats to which the empire was exposed were deemed to have been miraculously reduced"; because contending values then did not have to be balanced, any careful cost-benefit analysis was rendered unnecessary. Nor do authoritarian regimes seem to escape the temptations of inertia and embrace retrenchment or renewal. Even as the exertions of the Cold War bankrupted the Soviet Union, its leaders expanded global commitments and helped doom détente. They refused to consider substantial internal reform that might have strengthened the country's foundation. Reform did eventually take place, but it took an extraordinary change in leadership—the ascendance of Gorbachev—to bring about (the ultimately ill-fated) renewal.

Construal level theory also provides support for the expectation of "power transition" theory that rising powers are particularly likely to initiate war, as the power transition nears but before the challenger attains superiority.¹⁶ This claim has stumbled on the objection that it would be irrational for the rising power to initiate war before it could be confident of its triumph (Levy 1987:83–84). Because rising powers foresee long-term gains in an uncertain future, CLT expects that these gains weigh especially heavily in their decision making and that rising powers are

¹⁵ Rational states should continue to revise the status quo so that the distribution of benefits accords with the distribution of power (Gilpin 1981:187; Powell 1999:85).

¹⁶ We associate "power transition" theory with especially A.F.K. Organski; for a mature account, see Organski and Kugler (1980). Other accounts of hegemonic transition, such as that of Gilpin, expect that if war results, it is because the declining power initiates. While Organski is open to this possibility, he asserts that initiation by the challenger has been more common in history.

prone to the wishful thinking that war requires when one does not enjoy material advantages—such as presuming that the tide of history, swelling morale, or a crusading spirit favor them. Moreover, because far-sighted leaders focus on the desirability rather than the feasibility of their goals, officials in the rising power are likely to discount the concrete advice of military planners that war would be less costly later. Such arguments construed in low-level terms have greater traction as conflict appears imminent, but by then leaders likely find it politically impossible to back down. The psychology of temporal construal thus leads to a situation in which the declining power is too confident that it will stay on top and the rising power is too confident that it can triumph over its still-powerful adversary.

The Logic of Coercion

Among the long standing research programs in international security is how states use military force in limited ways to achieve political ends. Schelling's classic writings on deterrence and compellence, and the large rationalist follow-on literature, have elucidated this terrain. So too have political psychologists, who have long explored how cognitive heuristics and mental constructs complicate coercion. CLT suggests that the outcome of coercive contests hinges not only on the balance of power and interests à la rationalist theories of coercion, nor only on gains and losses à la prospect theory, but also on time horizons. It sheds light on a longstanding puzzle: Is compellence harder than deterrence, and why?

Theorists of coercion have argued that defenders of the status quo hold the advantage (Schelling 1966:100). One common explanation for the relative difficulty of compellence compared to deterrence is that the costs of conceding to the defender's threat are higher. Because targets of successful compellence must change their behavior, they cannot as easily deny that they conceded, and thus they bear the costs of "loss of face," internationally and domestically (Schelling 1966:82; Jervis 1979). This is reinforced by prospect theory. Because compellence requires the target to relinquish something, it resides in the domain of loss and is risk-acceptant. Conversely, deterrence requires a target to forego a prospective gain, in which case the target should be risk averse—hence the relative ease of deterrence (Levy 1992:289–290; Schaub 2004:400–406).

These arguments have merit, but they do not take sufficient note of temporal variation in coercive episodes. The key to who wins coercive contests, we suggest, lies in the interaction of time and sign—that is, whether an actor is facing a loss or gain. It is essential to recall that, under conditions of uncertainty—and we presume that coercive contests are rife with uncertainty over preferences, resolve, and reservation values—losses are discounted more heavily than gains as outcomes are delayed. When both sides have short time horizons, the expectations of prospect theory and CLT align. But they diverge

whenever at least one party to the conflict has long time horizons.

Compellence often requires short-term exertions by the actor issuing the threat, with compliance coming either quickly or not at all. The US-led effort to compel Iraq to retreat from Kuwait, beginning in November 1990, is a typical instance; similar are threats to impose economic retaliatory measures unless one's target removes trade barriers or revalues its currency. In other words, in many episodes of compellence, the coercer has short time horizons. Furthermore, in typical cases of compellence, the target of coercion is already engaging in the undesirable behavior, and we follow the existing literature in assuming that the prospect of coercion is a gain relative to the status quo for the compeller and a loss for the target. In line with CLT, short time horizons should produce caution on the part of the compeller, who stands to gain: The potential negative repercussions of actions should not be heavily discounted relative to the potential gains; high-probability, low-payoff gambles should be preferred; concrete reasoning and careful calculation should dominate decision making; and errors of commission should be more feared than errors of omission. At the same time, the target must choose between an immediate, certain loss if it acquiesces to its opponent's demands, and the possibility of escalated conflict. Located in the domain of loss, the target should be risk-acceptant and resist the compeller's demands. Given the imbalance in risk orientation, the advantage lies with the target, and compellence is difficult (Levy 1992:289–290, 2000:208; Schaub 2004:400–402). Even if compellence follows hard on the heels of a perceived loss, as when the United States tried to compel the Soviet Union to remove its nuclear missiles from Cuba in 1962, coercion will not be much easier, since the target will also perceive itself as seeking to avoid loss and will accept large risks to that end. These expectations are consistent with prospect theory, which is not surprising in light of the actors' short time horizons.

In some cases, however, participants in compellence have long time horizons, as the compeller seeks to avoid a possible loss by coercing the target to forego uncertain gains in the more distant future. This seems, for instance, to characterize Western efforts to compel Iran to abandon its (alleged) ambitions for nuclear weapons. In these cases, the target is being pressured to give up a policy it is already carrying out (unrestricted research into nuclear energy), whose goals it may be years away from realizing (weaponized nuclear capability). Compelling a target to forego future gains should be difficult according to CLT: Leaders in the target state should exhibit overconfidence that their chosen course of action will be successful and be relatively insensitive to risk. Long time horizons, moreover, should have similar effects on the compeller, which suggests that this is a potentially explosive scenario—in line with the Iran example. The one saving grace is that because the compeller faces the prospect of future

TABLE 2. Construal Level Theory, Prospect Theory, and Coercion: When Both Parties Have Long Time Horizons

	<i>Coercer (defender)</i>			
	<i>CLT predictions</i>		<i>Prospect theory predictions</i>	
	<i>Goal: obtain gain</i>	<i>Goal: avoid loss</i>	<i>Goal: obtain gain</i>	<i>Goal: avoid loss</i>
<i>Target (challenger)</i>				
Goal: obtain gain	High risk of conflict escalation	Advantage target	Low risk of conflict escalation	Advantage coercer
Goal: avoid loss	Advantage coercer	Low risk of conflict escalation	Advantage target	High risk of conflict escalation

losses, and because actors discount losses more heavily than gains as outcomes are delayed under conditions of uncertainty, compellers should back down before things get too out of hand. Once again, the target enjoys an advantage, and compellence is relatively difficult. These expectations are at odds with prospect theory, which is more sanguine about the prospects for long-term compellence: It would expect compellers facing future losses to run greater risks and thus to have an advantage over target states hoping for gains. Table 2 summarizes how CLT and prospect theory expectations differ when both the coercer (defender) and the target (challenger) have long time horizons.

Coercers' and targets' time horizons need not parallel each other. Compellers might seek to halt ongoing losses and thus have short time horizons, while targets seek gains in the distant future. Israel, for example, has sought to use military force to compel Palestinian groups to end rocket attacks from Gaza; while Israel's objectives are immediate (stop the launches), their Palestinian opponents' goals are longer term (an independent Palestinian state). This circumstance is even more volatile than that of the West-Iran confrontation, because short time horizons remove the compeller's discounting constraints: Israeli leaders would be expected to move deliberately, but, sitting in the domain of loss, they should be highly risk acceptant—as reflected in Operation Cast Lead (2008), which was preceded by much planning but which Israel undertook despite the likelihood of global opprobrium. Alternatively, compellers might have longer time horizons than their targets, as when the former seek long-run gains (for example, bolstering their reputation for resolve), while the latter seek to avoid the immediate losses that concessions would bring. This too is expected to be a dangerous situation: The compeller's long time horizons conduce to abstract construal, wishful thinking, and the downplaying of risk, and its long-term gains are not rapidly discounted; highly motivated to avoid loss in the short run, the target would accept substantial risks to thwart the compeller's efforts. Prospect theory would expect the target to be risk-acceptant, but cannot explain overconfidence on the part of the compeller, and it is the combination that makes this circumstance so volatile.

Deterrence too can entail varied time horizons. Because the other has not yet engaged in the unde-

sirable behavior, we presume that the defender seeks to prevent a loss relative to the status quo, while the challenger seeks to secure a gain. This simplifying assumption may be problematic: Actors may have different understandings of the status quo in deterrent episodes, and thus “challengers” may see themselves not as seeking gain but as trying to recoup past losses (Jervis 1992:192). But such simplification is useful in allowing us to highlight the unique contributions of time horizons, which rational deterrence theorists and prospect theorists alike ignore.

When deterrence is specific and immediate, and thus time horizons short, the defender's prospective loss is not heavily discounted relative to the challenger's prospective gain. In accord with prospect theory, the defender is expected to be more risk acceptant than the challenger—advantage defender, and the relative ease of deterrence. Moreover, successful deterrence requires that the challenger not act, and thus the fear of errors of commission that CLT expects to accompany short time horizons reinforces the defender's advantage. While the defender may wish to take some costly concrete actions, such as building up forces, to make its immediate deterrent threats more credible, deterrence is successful when the defender need not follow through, again limiting the fear of errors of commission.

However, when the rewards of successful deterrence for the defender and the costs for the challenger are felt farther off in the future—as when an actor issues a deterrent threat to protect its reputation for resolve—deterrence should be more difficult, as Table 2 suggests. As with long-run compellence, the value for the defender of uncertain loss should decline more rapidly than does the value to the challenger of uncertain gain, and thus the balance of interests should favor the challenger. Because distant threats are judged less likely to occur than distant opportunities when time horizons are long, the defender should be less willing to invest now for the sake of long-term deterrence, while the challenger should think the prospects for eventual aggression bright. Because actors pay less attention to the feasibility than to the desirability of achieving distant goals, challengers should give less consideration to the defender's actions and resolve. This expectation stands in contrast to the both rational deterrence theory and prospect theory. The former would see the outcome in such cases as contingent:

When both challenger and defender have long time horizons, and thus both discount equally, the outcome hinges on the balance of interests and perhaps inherent risk orientation. Prospect theory provides a more striking contrast (see Table 2): It does not anticipate the difficulty of deterring challengers with long time horizons, because it does not expect actors to be risk-acceptant when pursuing gains.¹⁷

In cases of deterrence as well, the actors' time horizons are often not identical. The defender may have longer time horizons than the challenger. For instance, the general US commitment to Taiwan's defense against China—as distinct from deterrent threats in specific crisis situations in the Strait—is oriented to maintaining America's regional reputation for resolve and preventing a regional arms race between Japan and China if the former came to doubt America's will. In contrast, China's time horizons with respect to Taiwan, while not immediate, are more closely tied to its need for domestic political legitimation, which must be continually renewed. Rational deterrence theory might be skeptical of the credibility of the American commitment, since the imbalance of interests would appear to favor China (Betts and Christensen 2000–2001:26–28). But CLT suggests a possible explanation for the puzzling US policy and, if we have correctly specified the actors' time horizons,¹⁸ a sanguine conclusion regarding the stability of the Taiwan Strait. America's long time horizons sustain this seemingly irrational commitment, as they lead the United States to focus on the desirability of maintaining and enhancing its reputation as an Asian power rather than on the feasibility of defending Taiwan or careful consideration of the US–China balance of interests. At the same time, if China has short time horizons (relative to the United States) and if it considers the acquisition of Taiwan a gain,¹⁹ it should be predisposed to caution and be hesitant to challenge the American deterrent. Indeed, Chinese analysts reportedly respect US resolve (Ross 2002:68–71).

Relatedly, scholars have suggested that states should not bother expending resources to try to bolster their reputation for resolve: Either cultivating such a reputation is beyond actors' control, or such reputations have no impact on crisis decision making (Mercer 1996; Press 2005). The puzzle is why leaders normally believe otherwise. CLT supplies an answer. The enterprise of formulating strategy, of bringing means and ends into alignment, is necessarily long term and abstract. Leaders engaged in the design of strategy thus have long time horizons, and

they should be attracted to arguments framed in abstract terms—that is, featuring stable, decontextualized properties of international affairs, rather than variable aspects of specific crisis situations. Strategy debate thus privileges reputational arguments, which are highly abstract and which invoke purportedly stable national attributes.²⁰

But why do leaders find themselves trapped in costly military interventions for the sake of general deterrence and reputation? When time horizons are long and construal is abstract, individuals devote more attention to the desirability of their goal than to its feasibility, fail to weigh carefully alternative courses of action, and pursue low-probability, high-payoff gambles. When abstract objectives like reputation for resolve frame policy debate, proposed military interventions receive less careful scrutiny, their costs are minimized, alternatives fail to be explored, and wishful thinking dominates. Even once the costs of intervention subsequently become salient, leaders feel compelled to deepen their commitment to the venture, perceiving that the nation's reputation, as well as their own as a strong leader, is on the line.

From the Lab to the “Real World”?

Can we safely extrapolate from these laboratory findings to the world of foreign policy decision making? The typical participant in psychological experiments is not representative of elite political actors, and laboratory settings cannot fully simulate the pressure or stakes of strategic decision-making environments. However, elites can be surprisingly like “average” citizens in their information processing and cognitive biases (Tetlock 1998, 1999). Furthermore, when elites do differ from non-elites, they are not necessarily more rational in their decision making; a recent study found that military officers evaluating counterterrorism policy “exhibited less [utility] maximizing and more satisficing decision-making” than college students and were less likely to gather information sufficient for the consideration of alternatives (Mintz, Redd, and Vedlitz 2006:765–766). Moreover, some studies that have revealed optimism biases in future forecasting have been conducted with business leaders, who might be expected to account for long-term costs and risks at least as well as government officials (Kahneman and Lovallo 1993:27–29; Shelley 1993, 1994). While the White House Situation Room is unquestionably a distinctive environment, whether that alone undermines the applicability of psychological dynamics should not be taken as an article of faith. In fact, given the wealth of studies that have effectively applied psychological insights to foreign policy, the burden of proof should lie with the skeptics. In general, there is no way of knowing whether any theory, psychological or not, is valid in a given context until it is measured against empirical evidence from that domain.

¹⁷ To explain such cases, prospect theorists would have to argue that the challenger was actually in the domain of loss, which, while not impossible, is often counterintuitive and places the burden of proof on the analyst.

¹⁸ As a reviewer rightly pointed out, however, the lack of a regular election cycle in China may mean that its leaders have longer time horizons than their American counterparts.

¹⁹ It is possible, however, that China resides in the domain of loss, either because it views Taiwan as a long-ago loss to be recouped or because the regime fears the prospective domestic costs of being insufficiently nationalistic.

²⁰ On distant events and dispositional attribution, see Nussbaum, Trope, and Liberman (2003).

For rationalist accounts too, the proof of the pudding must lie in the eating.

However, extending experimental findings to foreign policy decision making does pose challenges, which we note here briefly. We present these difficulties both to sound a note of epistemological caution and to identify issues that scholars intrigued by CLT should address as they consider applying it in their research. First, how do we ascertain actors' time horizons? In experiments, psychologists precisely manipulate time delays, but such precision is impossible to attain outside the laboratory. Researchers often operationalize a distant event as 6–9 months from the present. However, in foreign policy, 9 months may seem to some like the distant future, and to others like tomorrow. Relatedly, while CLT studies introduce uncertainty over what outcomes a choice will yield, they stipulate *when* a choice will bear fruit; in the “real world,” that too is often uncertain. The measurement problem is a serious one, but similar issues trouble applications of prospect theory and expected utility theory to the political realm.

Whether a particular span of time seems long or short to decision makers may depend on the social construction of time or on domestic and international institutions that socialize actors to certain modes of decision making. These perceptions may depend on whether the issue under consideration has been framed as a “problem,” which can be deferred, or a “crisis,” which demands immediate attention. While researchers designate actors' time horizons in experiments, political contestants struggle in part to define the relevant audience's perception of time. However, the experimental research on which we have drawn focuses on the *consequences* of given time horizons, not their origins. We can observe how political actors themselves characterize the choices they confront, whether they view events as coming to a head in the near or distant future and whether they see the future as relevant to present decision making—and treat these as exogenous inputs so as to trace their ramifications. While data sources in international relations do not allow for overly fine-grained analysis of time horizons, they generally do permit analysts to distinguish between decision makers with near-present and distant-future-oriented perspectives. For example, while General Tommy Franks (2004:441) believed his role in the 2003 invasion of Iraq was to focus on the immediate future, on combat operations—to “pay attention to the day of,” as he put it in his memoir—Douglas Feith had for years advocated regime change in Iraq because of the long-term effects he envisioned it would have on the Middle East as a whole (Packer 2005:60).

Second, the experimental literature raises questions about causal direction: Is something being construed abstractly because it is framed as distant, or is something perceived as distant because it is being construed abstractly? Both processes seem to be at work (Liberman and Trope 2008:1202–1203). The

difference is important, since the latter suggests that time horizons are more product than cause. Moreover, in the “real world,” the link between abstract construal and temporal distance is sufficiently tight that it is hard to find evidence of time horizons independent of their hypothesized effects on construal, raising the danger of tautology.

Third, CLT does not exclude the possibility that decision makers might become so committed to their initial construal of an issue that they subsequently fail to alter their construal level, despite the passage of time. In CLT studies to date, individuals are asked to consider choices only in the distant or the immediate future, not both. However, real-world policymakers do not have constant temporal frames: What is distant at t_0 eventually becomes near term at t_1 . While CLT expects policymakers to shift levels of construal as an event approaches, their perceptions may continue to be colored by their initial formulations. Closely related, real policymakers are not presented with a *single* temporal frame. CLT research has not to date explored whether competing temporal frames affect construal. Indeed, the introduction of competing *substantive* issue frames has shown that the presence of alternatives significantly decreases the impact of a specific frame (Druckman 2004). If the introduction of competing temporal frames has a similar effect, time horizons might matter less to actual decision making.

Fourth, CLT is a robust individual-level phenomenon, but much decision making in foreign policy takes place in small groups. There is evidence that groups can exhibit the same cognitive biases as individuals (Kerr and Tindale 2004:634), but whether this is true of heuristics used to cope with distance is not known.

Finally, the magnitude of time's impact on decision making appears to vary from experiment to experiment. For instance, when outcomes lie in the distant future, increasing the size of a lottery's maximum payoff has roughly 44% *greater* impact on how positively individuals view the gamble than when outcomes lie in the near future; conversely, under the distant future condition, increasing the probability of winning a lottery has almost 90% *less* impact on subjective evaluations than in the near future (calculated from Sagristano et al. 2002:369). Other findings seem less impressive, however. Researchers have found that subjects evaluating hypothetical distant future choices, such as whether to attend an event or make a purchase, weighed desirability considerations (liking the product) 7% more and feasibility considerations (time constraints) 17% less than those considering the near future. Yet, in the very same paper, they reported that subjects cared much less for feasibility, operationalized in terms of thinking about time constraints, as their time horizons lengthened: Subjects estimated they would spend 14 more hours (21% more time) on a given set of activities in a distant future week than they would in a near future week—nearly an entire waking day (calculated from Liberman and Trope 1998:11, 14)!

Without a meta-analysis of CLT studies, which is premature given the state of the literature, we cannot report with precision the impact of temporal considerations on the average individual.²¹

We know that CLT *can* matter a great deal, but it need not in a given case. This is a general problem confronting efforts to apply psychological insights to the making of foreign policy. Best methodological practices in this circumstance require an article of their own, but they must include even more attention than usual to alternative explanations.²² Thus, throughout this article, we have been careful to stress that our empirical examples are merely “consistent” with CLT. Evidence that a broad range of foreign policy behavior is “consistent” with CLT supports our call for more rigorous empirical research. We hope that other scholars will in the future establish whether and when CLT shapes decision-making processes in foreign policy.²³

Conclusion

Policymaking often entails weighing smaller gains now against larger gains later. Although elected representatives in democracies are often thought uniformly to hold short time horizons, sometimes they do take the long view. Unless long time horizons sometimes featured in their thinking, what policymaker would undertake fundamental, painful organizational reforms, design social insurance schemes, or intervene in protracted conflicts abroad?²⁴ Political scientists’ enduring interest in time horizons has not been matched by engagement with research revealing how human beings actually make intertemporal tradeoffs. Those findings, emerging out of psychology and behavioral economics, suggest that the decision-making assumptions underpinning much research in international relations are problematic. Taking those findings seriously casts doubt on existing approaches to classic questions in international relations and helps address enduring puzzles. We have shown what IR scholarship informed by these findings would look like—what questions it might ask and what answers it might provide. But we have not here been able to deliver on that research agenda. Future research will, we hope, do so.

References

- AINSLIE, GEORGE. (2001) *Breakdown of Will*. New York: Cambridge University Press.
- AXELROD, ROBERT. (1984) *The Evolution of Cooperation*. New York: Basic Books.

²¹ Thanks to an anonymous reviewer for pressing us on this issue.

²² For good methodological discussions, see Kaufmann (1994); Kaarbo and Beasley (1999).

²³ One of this article’s authors has begun to take up this challenge. See Rapport (2010).

²⁴ For recent contributions on the sources and consequences of political actors’ long time horizons, see Rosen (2004:135–178); Jacobs (2008); Wright (2008); Healy and Malhotra (2009).

- BAR-ANAN, YOAV, NIRA LIBERMAN, AND YAACOV TROPE. (2006) The Association Between Psychological Distance and Construal Level: Evidence From an Implicit Association Test. *Journal of Experimental Psychology* 135 (4): 609–622.
- BARKIN, J. SAMUEL. (2004) Time Horizons and Multilateral Enforcement in International Cooperation. *International Studies Quarterly* 48 (2): 363–382.
- BENSAHEL, NORA, OLGA OLIKER, KEITH CRANE, RICHARD R. BRENNAN, HEATHER S. GREGG, THOMAS SULLIVAN, AND ANDREW RATHMELL. (2008) *After Saddam: Prewar Planning and the Occupation of Iraq*. Santa Monica, CA: RAND.
- BETTS, RICHARD K., AND THOMAS J. CHRISTENSEN. (2000–2001) China: Getting the Questions Right. *The National Interest* 62: 17–29.
- CARR, EDWARD HALLETT (1951) *The 20 Years’ Crisis, 1919–1939: An Introduction to the Study of International Relations*, 2nd edition. London: Macmillan.
- CASEY, STEVEN. (2001) *Cautious Crusade: Franklin D. Roosevelt, American Public Opinion, and the War against Nazi Germany*. New York: Oxford University Press.
- CHRISTENSEN, THOMAS J. (2006) Fostering Stability or Creating a Monster? The Rise of China and U.S. Policy Toward East Asia. *International Security* 31 (1): 81–126.
- COOLEY, ALEXANDER, AND HENDRIK SPRUYT. (2009) *Contracting States: Sovereign Transfers in International Relations*. Princeton: Princeton University Press.
- DALLEK, ROBERT. (1979) *Franklin D. Roosevelt and American Foreign Policy, 1932–1945*. New York: Oxford University Press.
- DRUCKMAN, JAMES N. (2004) Political Preference Formation: Competition, Deliberation, and the (Ir)relevance of Framing Effects. *The American Political Science Review* 98 (4): 671–686.
- EDELSTEIN, DAVID M. (2011) *Hypotheses on Time Horizons in International Relations*. Washington, DC: Georgetown University.
- EYAL, TAL, NIRA LIBERMAN, YAACOV TROPE, AND EVA WALTHER. (2004) The Pros and Cons of Temporally Near and Distant Action. *Journal of Personality and Social Psychology* 86 (6): 781–795.
- FARNHAM, BARBARA. (1997) *Roosevelt and the Munich Crisis: A Study of Political Decision-Making*. Princeton: Princeton University Press.
- FEARON, JAMES D. (1998) Bargaining, Enforcement, and International Cooperation. *International Organization* 52 (2): 269–305.
- FRANKS, TOMMY. (2004) *American Soldier*. New York: Regan Books.
- FREDERICK, SHANE, GEORGE LOEWENSTEIN, AND TED O’DONOGHUE. (2002) Time Discounting and Time Preference: A Critical Review. *Journal of Economic Literature* 40 (2): 351–401.
- FRIEDBERG, AARON L. (1988) *The Weary Titan: Britain and the Experience of Relative Decline, 1895–1905*. Princeton: Princeton University Press.
- FRIEDBERG, AARON L. (2005) The Future of U.S.–China Relations: Is Conflict Inevitable? *International Security* 30 (2): 7–45.
- FUJITA, KENTARO, MARLONE D. HENDERSON, JULIANA ENG, YAACOV TROPE, AND NIRA LIBERMAN. (2006) Spatial Distance and Mental Construal of Social Events. *Psychological Science* 17 (4): 278–282.
- FUJITA, KENTARO, TAL EYAL, SHELLY CHAIKEN, YAACOV TROPE, AND NIRA LIBERMAN. (2008) Influencing Attitudes Towards Near and Distant Objects. *Journal of Experimental Social Psychology* 44 (3): 562–572.
- GILPIN, ROBERT. (1981) *War and Change in World Politics*. Cambridge: Cambridge University Press.
- HEALY, ANDREW, AND NEIL MALHOTRA. (2009) Myopic Voters and Natural Disaster Policy. *The American Political Science Review* 103 (3): 387–406.
- HENDERSON, MARLONE D., AND YAACOV TROPE. (2009) The Effects of Abstraction on Integrative Agreements: When Seeing the

- Forest Helps Avoid Getting Tangled in the Trees. *Social Cognition* 27 (3): 399–415.
- HENDERSON, MARLONE D., YAACOV TROPE, AND PETER J. CARNEVALE. (2006) Negotiation from a Near and Distant Time Perspective. *Journal of Personality and Social Psychology* 91 (4): 712–729.
- HIGHHOUSE, SCOTT, SUSAN MOHAMMED, AND JODY R. HOFFMAN. (2002) Temporal Discounting of Strategic Issues: Bold Forecasts for Opportunities and Threats. *Basic and Applied Social Psychology* 24 (1): 43–56.
- JACOBS, ALAN M. (2008) The Politics of When: Redistribution, Investment and Policy Making for the Long Term. *British Journal of Political Science* 38 (2): 193–220.
- JERVIS, ROBERT. (1979) Deterrence Theory Revisited. *World Politics* 31 (2): 289–324.
- JERVIS, ROBERT. (1992) Political Implications of Loss Aversion. *Political Psychology* 13 (2): 187–204.
- KARBO, JULIET, AND RYAN BEASLEY. (1999) A Practical Guide to the Comparative Case Study Method in Political Psychology. *Political Psychology* 20 (2): 369–391.
- KAHNEMAN, DANIEL, AND DAN LOVALLO. (1993) Timid Choices and Bold Forecasts: A Cognitive Perspective on Risk Taking. *Management Science* 39 (1): 17–31.
- KAUFMANN, CHAIM. (1994) Out of the Lab and into the Archives: A Method for Testing Psychological Explanations of Foreign Policy Decision Making. *International Studies Quarterly* 38 (4): 557–586.
- KEOHANE, ROBERT O. (1984) *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton: Princeton University Press.
- KEOHANE, ROBERT O. (1989) *International Institutions and State Power: Essays in International Relations Theory*. Boulder: Westview Press.
- KEOHANE, ROBERT O., AND LISA L. MARTIN. (1995) The Promise of Institutional Theory. *International Security* 20 (1): 39–51.
- KERR, NORBERT L., AND R. SCOTT TINDALE. (2004) Group Performance and Decision Making. *Annual Review of Psychology* 55: 623–655.
- KOZAK, MEGAN N., ABIGAIL A. MARSH, AND DANIEL M. WEGNER. (2006) What Do I Think You're Doing? Action Identification and Mind Attribution. *Journal of Personality and Social Psychology* 90 (4): 543–555.
- KREPS, SARAH E. (2008) When Does the Mission Determine the Coalition? The Logic of Multilateral Intervention and the Case of Afghanistan. *Security Studies* 17 (3): 531–567.
- LEACH, FREDERICK R., AND JASON E. PLAKS. (2009) Regret for Errors of Commission and Omission in the Distant Term Versus Near Term: The Role of Level of Abstraction. *Personality and Social Psychology Bulletin* 35 (2): 221–229.
- LEVY, JACK S. (1987) Declining Power and the Preventive Motivation for War. *World Politics* 40 (1): 82–107.
- LEVY, JACK S. (1992) Prospect Theory and International Relations: Theoretical Applications and Analytical Problems. *Political Psychology* 13 (2): 283–310.
- LEVY, JACK S. (2000) Loss Aversion, Framing Effects, and International Conflict: Perspectives from Prospect Theory. In *Handbook of War Studies II*, edited by Manus I. Midlarsky. Ann Arbor: University of Michigan Press.
- LIBERMAN, NIRA, AND YAACOV TROPE. (1998) The Role of Feasibility and Desirability Considerations in Near and Distant Future Decisions: A Test of Temporal Construal Theory. *Journal of Personality and Social Psychology* 75 (1): 5–18.
- LIBERMAN, NIRA, AND YAACOV TROPE. (2008) The Psychology of Transcending the Here and Now. *Science* 322: 1201–1205.
- MERCER, JONATHAN. (1996) *Reputation and International Politics*. Ithaca, NY: Cornell University Press.
- MERCER, JONATHAN. (2005) Prospect Theory and Political Science. *Annual Review of Political Science* 8: 1–21.
- MINTZ, ALEX, STEVEN B. REDD, AND ARNOLD VEDLITZ. (2006) Can We Generalize from Student Experiments to the Real World in Political Science, Military Affairs, and International Relations? *The Journal of Conflict Resolution* 50 (5): 757–776.
- NATIONAL INTELLIGENCE COUNCIL. (2008) *Global Trends 2025: A Transformed World*. Washington, DC: US Government Printing Office.
- NUSSBAUM, SHIRI, YAACOV TROPE, AND NIRA LIBERMAN. (2003) Creeping Dispositionism: The Temporal Dynamics of Behavior Prediction. *Journal of Personality and Social Psychology* 84 (3): 485–497.
- ORGANSKI, A. F. K., AND JACEK KUGLER. (1980) *The War Ledger*. Chicago: University of Chicago Press.
- OYE, KENNETH A. (1986) Explaining Cooperation Under Anarchy: Hypotheses and Strategies. In *Cooperation Under Anarchy*, edited by Kenneth A. Oye. Princeton: Princeton University Press.
- PACKER, GEORGE. (2005) *The Assassin's Gate: America in Iraq*. New York: Farrar, Straus and Giroux.
- POWELL, ROBERT. (1996) Uncertainty, Shifting Power, and Appeasement. *The American Political Science Review* 90 (4): 749–764.
- POWELL, ROBERT. (1999) *In the Shadow of Power: States and Strategies in International Politics*. Princeton: Princeton University Press.
- PRESS, DARYL G. (2005) *Calculating Credibility: How Leaders Assess Military Threats*. Ithaca, NY: Cornell University Press.
- RAPPORT, AARON. (2010) Planning in the Shadow of the Future: U.S. Military Interventions and Time Horizons. Unpublished Doctoral Dissertation, Department of Political Science, University of Minnesota.
- RAPPORT, AARON. (2011) *The Long and Short of It: Cognitive Constraints on Leaders' Assessments of "Postwar" Iraq*. Atlanta: Georgia State University.
- ROSEN, STEPHEN P.. (2004) *War and Human Nature*. Princeton: Princeton University Press.
- ROSS, ROBERT S. (2002) Navigating the Taiwan Strait: Deterrence, Escalation Dominance, and U.S.–China Relations. *International Security* 27 (2): 48–85.
- SAGRISTANO, MICHAEL D., YAACOV TROPE, AND NIRA LIBERMAN. (2002) Time Dependent Gambling: Odds Now, Money Later. *Journal of Experimental Psychology* 131 (3): 364–376.
- SCHAUB, GARY. (2004) Deterrence, Compellence, and Prospect Theory. *Political Psychology* 25 (3): 389–411.
- SCHELLING, THOMAS C. (1966) *Arms and Influence*. New Haven, CT: Yale University Press.
- SHELLEY, MARJORIE K. (1993) Outcome Signs, Question Frames and Discount Rates. *Management Science* 39 (7): 806–815.
- SHELLEY, MARJORIE K. (1994) Gain/Loss Asymmetry in Risky Intertemporal Choice. *Organizational Behavior and Human Decision Processes* 59 (1): 124–159.
- STREICH, PHILLIP, AND JACK S. LEVY. (2007) Time Horizons, Discounting, and Intertemporal Choice. *The Journal of Conflict Resolution* 51 (2): 199–226.
- TETLOCK, PHILIP E. (1998) Close-Call Counterfactuals and Belief-System Defenses: I Was Not Almost Wrong but I Was Almost Right. *Journal of Personality and Social Psychology* 75 (3): 639–652.
- TETLOCK, PHILIP E. (1999) Theory-Driven Reasoning About Plausible Pasts and Probable Futures in World Politics: Are We Prisoners of Our Preconceptions? *American Journal of Political Science* 43 (2): 335–366.
- TETLOCK, PHILIP E. (2005) *Expert Political Judgment: How Good Is It? How Can We Know?* Princeton: Princeton University Press.
- THALER, RICHARD. (1981) Some Empirical Evidence on Dynamic Inconsistency. *Economic Letters* 8 (3): 201–207.
- TOFT, MONICA D.. (2006) Issue Indivisibility and Time Horizons as Rationalist Explanations for War. *Security Studies* 15 (1): 34–69.

- TROPE, YAACOV, AND NIRA LIBERMAN. (2000) Temporal Construal and Time-Dependent Changes in Preference. *Journal of Personality and Social Psychology* 79 (6): 876–889.
- TROPE, YAACOV, AND NIRA LIBERMAN. (2003) Temporal Construal. *Psychological Review* 110 (3): 403–421.
- TROPE, YAACOV, AND NIRA LIBERMAN. (2010) Construal-Level Theory of Psychological Distance. *Psychological Review* 117 (2): 440–463.
- VALLACHER, ROBIN R., AND DANIEL M. WEGENER. (1985) *A Theory of Action Identification*. Hillsdale, NJ: Lawrence Erlbaum.
- VALLACHER, ROBIN R., AND DANIEL M. WEGENER. (1989) Levels of Personal Agency: Individual Variation in Action Identification. *Journal of Personality and Social Psychology* 57 (4): 660–671.
- WAKSLAK, CHERYL J., YAACOV TROPE, NIRA LIBERMAN, AND ROTEM ALONY. (2006) Seeing the Forest When Entry Is Unlikely: Probability and the Mental Representation of Events. *Journal of Experimental Psychology: General* 135 (4): 641–653.
- WOODWARD, BOB. (2006) *State of Denial*. New York: Simon and Schuster.
- WRIGHT, JOSEPH. (2008) To Invest or Insure? How Authoritarian Time Horizons Impact Foreign Aid Effectiveness. *Comparative Political Studies* 41 (7): 971–1000.