

The Beholders of Time: Is the Duration of Interstate Conflict Subject to State Reputations?

Carl Lawrence

Why do some wars between states last longer than others? Most scholarship to date has paid attention to material factors such as shifts in 'relative power' between a pair of states at war with each other for aggravating the duration and destructiveness of conflict. This article re-evaluates the puzzle of war by using a subjective, immaterial variable—'reputation'—in a quantitative study that seeks to further explain war's longevity. Specifically, I combine the logic of commitment problems with a theory of 'reputation'. 'Reputation', as it is understood in this article, refers to the subjective knowledge about a state that is informed by the observation of its past behaviour towards third-party states. Building on this understanding, I introduce two mechanisms through which I expect reputations for aggressive behaviour will lead towards longer wars. Subsequently, I test my hypotheses using an event-history analysis, or a Cox proportional-hazard model, with a large-*n* dataset built from two extant studies, one on conflict duration, and the other on reputations. My most significant finding is that the reputation of the initiator of a war as an aggressor does affect the duration of interstate conflict, but surprisingly a reputation for aggression leads to shorter, not longer, wars. Finally, I discuss potential explanations for why the results confound my expectations, before introducing avenues for future research that can help further our understanding of reputations and their relationship with state behaviour.

INTRODUCTION

Why do some wars between states last longer than others? Most scholarship to date, particularly in the realist schools of international relations theory, has paid attention to material factors such as shifts in 'relative power' between a warring-dyad; that is, a pair of states at war with each other, for aggravating the duration and destructiveness of conflict (Mearsheimer 2001; Waltz 1979).¹ One of the most complete explanations that appears in the literature that draws on shifts in relative capabilities are 'dispositional commitment problems' (Weisiger 2013). Put simply, dispositional commitment problems expect that a war between two states following a shift in relative capabilities will become especially long and destructive if one of the states develops a perception of their adversary as 'dispositionally' aggressive or evil and so needs to be eliminated entirely for the war to end.

In this article, I introduce a novel assessment of commitment problems and the study of conflict duration by combining it with recent scholarship in the field of 'reputation theory' (Jervis, Yarhi-Milo & Casler 2021; Crescenzi 2007; 2018). 'Reputation', as it is understood in this article, refers to the subjective knowledge about a state that is informed by the observation of its past behaviour towards third-party states. My focus is on reputations for aggressive behaviour. Some scholars suggest a reputation for 'resolve', i.e., the *willingness* to fight over issues, functions as a military deterrent (Schelling 1966). Others suggest the opposite—that it frequently leads to the escalation of crisis into war (Crescenzi 2007; 2018). Following this, I expect that reputations for aggressive behaviour will contribute towards the dispositional commitment problems that lead to the longest and most destructive wars. My most significant finding is that the reputation of the *initiator* of a war does affect the duration of interstate conflict, but surprisingly a reputation for aggression leads to *shorter* wars, not longer.

The article follows in four parts. In the first section, I review the literature on commitment problems and

conflict duration to outline why I expect 'reputations' to be a variable of significance to be researched in this field. In the second section, I propose a theoretical framework to guide my expectations, introducing two possible mechanisms through which 'reputations' can lead to longer wars. In the third and fourth sections, I describe my research design and results, introducing a quantitative method for studying reputation's effect on conflict duration. In the Discussion and Conclusion, I summarise my findings and describe future research that could be done in this area to help better understand my results.

LITERATURE REVIEW

The duration of interstate conflict is not duration dependent. By this it is meant that 'such variables other than the duration of war itself perpetuate the conflict' (Bennett & Stam 1996, p. 239). Literature on conflict duration has empirically established multiple causes of longer and shorter wars. Why, then, introduce another study into the field which focuses on 'reputations'? As I expand on in the theoretical framework section of this article, reputations are considered in this study to be a subjective type of information about a state informed by the observation of its past behaviour towards third-party states (Crescenzi 2007; Jervis, Yarhi-Milo & Casler 2021). Within this literature review, I infer that this missing factor—past behaviour towards *third parties*—should in fact matter but remains overlooked.

The following section of the article is in two sections. The first explores the literature on commitment problems, a logic of war that results in longer and more destructive conflicts caused by mutual distrust over the future intentions of states experiencing a shift in relative power. The second section explores the literature on third-party interventions, past direct interactions between warring states, and their respective effects on conflict duration. In these two discussions, I identify that studying the relationship between 'reputations' and interstate conflict duration will first bring insights into

¹ Defensive realists such as Kenneth Waltz argue that it is disruption of the balance of power which states try and preserve that leads to miscalculation and subsequent war. Offensive realists like John Mearsheimer argue instead that it is the competition to maximise relative power that leads to conflict escalation between rival states.

whether beliefs about adversaries are formed in conflict or through observation of past behaviour, and second whether there are limitations to the interdependence of interstate conflict duration with external and historical events.

THE ORIGIN OF PERCEPTION

I argue that if reputations are important in the study of conflict duration, it is because the perceptions states have of each other are informed by their observed past behaviour. In this section, I explore the *bargaining model* of war (Fearon 1995), which conceptualises interstate conflicts as a negotiation process to resolve disputes that otherwise could not be settled through peaceful bargaining. I then introduce a study on *commitment problems*, an explanation of war that sees mutual distrust between states as a barrier to dispute resolution. After, I explain the escalating effect of *dispositional* commitment problems, in which the perception of an adversary as 'dispositionally' untrustworthy or evil by its negotiating partner prohibits the termination of conflict under any condition other than an absolute surrender or actor elimination (Weisiger 2013). Current explanations of dispositional commitment problems expect that the perception of an adversary's war-loving or evil disposition forms through fighting (*ibid.*, pp. 25–33). I resurface a question of whether the formation of this perception can be attributed to the observed past behaviour of a belligerent towards third-party states (Fearon 1994).²

The bargaining model of war offers a 'rationalist explanation' for why some interstate wars are longer than others (Reiter 2003). In this framing, war is seen as a negotiation process, that is a means of contesting an 'object of dispute', be it a resource, power, or status. It originates in the work of Prussian political theorist Carl von Clausewitz, who claimed war to be 'the continuation of policy with other means' (1984/1832, p. 87). In his conception, war serves as a tool of last resort, in instances when diplomacy alone cannot settle the interests of political actors. Similarly, James Fearon argues that states fight wars because they think the gains of war as a negotiation strategy will be more beneficial than the costs of a pre-war concession, stating that leaders 'find that the expected benefits of war sometimes outweigh the expected costs, however unfortunate this may be' (1995, p. 380).

Fearon presents three 'types' of disagreement in a negotiation that will prevent a settlement from being achieved through conventional means (Fearon 1995, p. 381). First, two states may not reach a settlement because they do not agree on the extent of their own and their respective other's military capabilities and willingness to fight, either because of deception or information disparities (Fearon 1995, p. 381). Second, if the object of dispute is considered by both parties as 'indivisible' because neither are willing to share or divide it, then reaching a negotiated settlement without conflict becomes much harder (Fearon 1995, p. 382). Finally, two states may not be able to reach a pre-war settlement because neither state can feel assured that the other will uphold such an agreement owing to 'incentives to renege on the terms', this being what is termed a '*commitment problem*' (Fearon 1995, p. 381). It is a powerful cause of war, in which one, or both, state(s)

expect that their adversary will behave aggressively or offensively in the future simply because there is no way of guaranteeing that they will not.

Alex Weisiger (2013) argues that wars driven by commitment problems are more likely to become 'unlimited'. By 'unlimited', Weisiger refers to those wars which are unusually long in duration and destructive in material, human and political costs. He writes that wars driven by 'the commitment problem mechanism', unlike other types of wars, lack 'an internal logic that guarantees that opponents will reach a negotiated settlement after some period of fighting' (Weisiger 2013, p. 11). Wars driven by commitment problems are difficult to resolve because the dispute is defined by mistrust of the opposition, which is not easily assuaged through fighting. He then differentiates commitment problems into two distinct mechanisms described as *situational* and *dispositional* (Weisiger 2013, pp. 11–34).

The *situational commitment problem*, also referred to as the '*preventive war mechanism*', suggests that some wars will emerge because of shifts in relative power between two states and the fear that the state in decline experiences (Weisiger 2013, pp. 16–19; Copeland 2000). Weisiger presents the following logic explaining how this leads to war: 'leaders who anticipate relative decline must decide how to respond, often without knowing for sure what the rising power intends to do once stronger' (Weisiger 2013, p. 18). A state experiencing relative decline sees its future position becoming increasingly insecure. As it becomes relatively weaker, it also becomes less able to effectively deter future aggressions and coercion. The declining power might, therefore, insist that the rising power make a guarantee to leave it alone in the future by offering its own pacification in the present moment. Such a deal may logically appear 'preferable on each side to the expected utility of going to war' (Weisiger 2013, p. 18). However, with no overarching guarantor of such commitments in an anarchic international system, there is no credibility to such an agreement (see Waltz 1979). Weisiger even suggests 'it may well be stupid' for the rising power to accept such a deal or commitment (Weisiger 2013, pp. 18–19).

From this, the power experiencing a relative decline is expected to try to prevent the rising power from achieving material preponderance in the future whilst it has the capabilities to do so. Weisiger concludes that '[i]n this context, forcibly imposing a significant defeat on one's opponent holds out the potential to resolve the entire problem in one quick move' (Weisiger 2013, p. 19). The *situational commitment problem* can explain what motivates fighting between states experiencing relative shifts in power. Following the bargaining model of war, we should expect that for this type of conflict to terminate, the distribution of relative power needs to become redistributed in such a way to bring credibility of commitment to any negotiated settlement. This would be achieved when the damage incurred by warfare renders continued fighting too costly for either one or both states involved, which may, and often does, take a significant amount of time and military expenditure.

The second logic Weisiger describes is the *dispositional commitment problem*. It is triggered when a leader comes to believe 'that the opponent is by nature (i.e., *dispositionally*) committed to aggression (Weisiger

² Fearon (1994) explicitly argues that only information in the conflict and the crisis remains relevant to the bargaining process.

2013, p. 29; emphasis mine). This scenario starts with a 'declining power' launching 'an aggressive preventive war, based on a belief that its rising opponent will impose painful concessions on it once its rise is complete' (Weisiger 2013, p. 26). However, if 'the rising power lacks the intentions that the declining power ascribes to it' it will fail 'to appreciate the true motivation behind the declining power's aggressive war' (Weisiger 2013, p. 26). This misunderstanding of the declining power's future fears then leads to a perception that it is *dispositionally* evil, aggressive, or war-loving in the eyes of the opponent.

Weisiger argues that the information which inspires this perception is generated during the process of conflict. He writes '[i]n wars driven by a preventive motivation, the initiator tends to have particularly high war aims and is willing to adhere to these aims even in the face of initial military defeats' (Weisiger 2013, p. 31). This matters to the target of such a declaration because if the initiator's demands remain so high that they do not rationally correspond to the reality of 'military developments' then this becomes 'compatible with a view of the opponent as a war lover' (Weisiger 2013, p. 31).

Put simply, if a state experiences military setback after launching a preventive war, and then continues to make demands from the target of war which exceed what now seems reasonable in the military context, the target will assume that the initiator is simply a war-lover, i.e., that it is dispositionally aggressive (see Reiter 2009). As a result, the target of war limits what it considers an acceptable outcome to 'the reformation or removal of the offending actors on the opposing side, be they an individual leader, a broader government, or even the entire society of the opposing country' (Weisiger 2013, p. 26). Thus, these conflicts tend towards being fought to the bitter end, rather than achieving a preferable power parity that can enable a negotiated settlement. In this process, conflicts that are driven by the dispositional commitment problem result in 'the most destructive interstate wars' as they become the most difficult to resolve (Weisiger 2013, p. 26).

Weisiger's argument is that the perception of one's opposition as *'dispositionally evil'* emerges from information updating through conflict. However, what has not been explored concretely is whether information derived from an adversary's past behaviour with other states also affects these perceptions and in turn drives the cost threshold that a state is willing to commit to achieve an absolute military victory (Fearon 1994). It is this mechanism that I seek to further understand in this article by exploring reputation's effect on conflict duration.

THE INTERDEPENDENCE OF INTERSTATE CONFLICT

I argue that reputations should affect the duration of interstate conflicts because I expect that the past behaviour of belligerents towards third-party states is interdependent with the decisions made by states and leaders at war.³ In my assessment of the broader literature on conflict duration, I infer this expectation by identifying the relevance of variables which intersect on the two dimensions that reputations lie: first in 'external factors' specifically relating to third-party states; and second in 'historical factors', relating to variables that have significance in the present despite

occurring prior to the conflict's onset. Through this, I observe that interstate conflict duration is shown to be interdependent with *direct* internal, external, and historical, interactions. By internal, I refer to interactions that describe or are caused solely by the main warring parties. By external, I refer to interactions that are governed by external entities, such as intervening third-party states. By historical, I refer to interactions that emerge from the past, such as the development of economic interdependence. The observation of the external and historical interdependence of interstate conflict drives a second question of my research: is the interdependence of a warring dyad limited to direct interactions between belligerents, or is it also subject to indirect interactions, consistent with its historical and external dependencies?

The earliest studies of conflict duration paid attention to characteristics of the two main parties involved in the conflict (Bennett & Stam 1996). Variables shown to affect conflict duration include, as examples, the geographical terrain between the two countries; political features such as the warring parties' political regimes; or, as rationalist theories expect, the relative balance of material power (Bennett & Stam 1996). All of these have been empirically tested to show that they affect the amount of time two states will continue to fight if engaged in a war (Bennett and Stam 1996; Fearon 1995; Weisiger 2013). I describe these as 'internal level' interactions: variables that affect conflict duration, but describe only the warring pair of states together or individually. We also can identify direct external and historical interactions affecting conflict duration, from which I infer conflict's external and historical interdependence.

Starting with external interactions, third parties are already known to affect the duration of interstate conflict. Conflicts rarely, if ever, exist in isolation,⁴ and it has been empirically shown that third-party interventions do affect duration, usually by prolongation. Upsetting the balance of power and relative material capabilities between the primary warring parties is the most obvious causal mechanism to explain this effect. Third parties may affect conflict through immaterial as well as material interactions. They introduce their own impartialities to the bargaining process, deviating the dispute away from the original object of disagreement by introducing new and external perspectives. Zachary Shirkey's research into external interventions and interstate conflict duration showed that an intervention made *after* the first month of a war will have a greater effect in prolonging the war than an intervention made *within* the first month (Shirkey 2012). The explanation of this phenomena is that a later intervention implies the external actor's decision to intervene is *not* motivated by the primary object of dispute that emerged between the original pair of states, but instead is motivated by autonomous ambitions.⁵

As such, I infer that third parties, which are entities external to a warring dyad, influence conflict in more than just direct material ways. They introduce new information, as well as interests, that perpetuate the duration of conflict and muddy the waters of the bargaining process. If third-party interactions with a warring pair can shape the subjective information held by these two states about the conflict and each other, I argue that this means interstate conflicts are

³ Deutsch (1954) makes a case that states and conflicts are interdependent, yet research methodology has simply not been advanced enough to explore this.

⁴ Siverson and Starr (1991) described what they call 'diffusion' or 'contagion' of conflicts. When conflicts and wars occur, they draw in other states and actors who find their own interests relevant to the outcome and process of the war itself.

⁵ Shirkey (2012); also Regan and Stam (2012) show similar findings on the effect of international mediation efforts.

interdependent with the decisions and perspectives of third-party states. My question is: does this process only work in one direction? If the indirect interactions of two warring parties towards third parties has a similar effect as the direct interactions of third parties towards the conflict, then this would mean that the external interdependence of conflict is not limited only to direct events.

The next step of inference is to explore how information and events derived from the past affect the decisions which perpetuate conflict in the present. I make two observations which support the argument that past actions can change the social relations between states and thus affect conflict's duration. First, Krustev shows that 'economic interdependence', formed through a history of trade between two belligerents, limits conflict duration (Krustev 2006). He argues that this occurs because the costs of prolonged conflicts exponentially increase when the two states rely on each other for their national economic needs. Therefore, historically cooperative relationships affect the duration of conflict.

Conversely, Long (2003) shows that a history of conflicting behaviour between states also affects the duration of wars. Employing a similar dataset and explanatory variable to those used in this article, he shows that a history of conflicting interaction between two states also results in longer durations of conflict. They argue that two states with a history of conflict develop perceptions of the respective other as a 'rival'. Over time, this perception becomes integrated into the national psyche, resulting in domestic pressures exerted on the political elite to increase the demands in negotiation and limiting what might be considered acceptable terms.

Both examples indicate that there is interdependence between historical interactions and the duration of interstate conflict, conditioned by both material relations and social perceptions. In turn, this leads to my question: do indirect interactions such as the past behaviour of belligerents towards third-party states also have an effect?

This assessment of the literature on conflict duration convinces me that the effect of reputations on conflict duration should be researched further. First, dispositional commitment problems expect that a state's *perception* of an adversary as 'war-loving' or 'aggressive' leads to longer wars (Weisiger 2013). Testing the effect of reputation on these perceptions will introduce novel understandings of whether indirect interactions matter in the formation of social identities, and whether states refer only to the information updating process of war itself when deciding on their adversary's 'disposition'.

Second, the direct interaction of external actors and the past actions of the two main parties in a war are also shown to influence conflict duration. This implies that interstate wars as political processes are interdependent with direct external and historical interactions. Asking whether indirect interactions have a similar influence would further knowledge of the extent to this interdependence. If they do, this would encourage further research into how states react to the actions of other states. If they do not, it would indicate that there are limits to the interdependence of state behaviour and the range of information available to them in the international environment.

THEORETICAL FRAMEWORK

How can 'reputations', informed by past behaviour towards third-party states, cause longer wars? In this section I rationalise the processes by which I expect reputations might affect the duration of interstate conflict. I do this in two stages. First, I elaborate current theories on how state 'reputations' function in international politics. Second, I form the basis of two causal mechanisms which predict how reputations for aggression would prolong wars between states. I conclude by introducing my hypotheses with which to test these mechanisms.

WHAT ARE REPUTATIONS, AND HOW DO THEY WORK?

Reputations remain a contentious issue in international relations theory.⁶ They are highly subject to interpretation and difficult to pin down precisely with a universal definition and theoretical construction. I take the understanding that reputations are, as Jonathan Mercer puts it, 'in the eye of the beholder' (Mercer 1996, p. 227). By this I mean that they are subjective: their importance, value and meaning are determined by the *viewer* and not the state that the reputation is attached to. Whatever information a reputation 'tells' about a state is relative to the identity of whoever is interested in it. Reputations are also taken to be informed by the past behaviour of states (Dafoe, Renshon & Huth 2014, p. 375). However, when a subject state refers to another state's past behaviour to attain information on its reputation, the subject state will pay greater attention to behavioural patterns that are more *contextually* informative. These will be instances when the observed state interacts with states that are *like* the subject state.

In this way, reputations can be understood as having a relativity described by both a 'spatial' and 'temporal' dependence on interactions (Crescenzi 2007; 2018). Reputations are spatially dependent in the sense that they are only important as far as the subject state, that is that state *observing*, is *like* the third-party states that are being interacted with by an observed state. Reputations are temporally dependent because the value of the information they provide decays over time (Crescenzi 2007; also see Weisiger & Yarhi-Milo 2015). In turn, a state which is *recently* observed escalating conflicts militarily with states that are like the observing subject state will develop a reputation for being aggressive or war-loving. The subject state will then base its expectations of how the observed state will behave towards itself on this reputation and, as I argue for in the next section, will adjust its foreign policy strategy in response.

Reputation's dependence on observed case similarities is described by what may be termed *spatial relativity* (Crescenzi 2018, p. 47). The information reputations provide is only useful as far as the third-party states that are interacted with are spatially similar—geographically, materially, or politically—to the subject state that is observing. We might consider, for instance, the escalation to war between Cambodia (then under the Khmer Rouge as Democratic Kampuchea) and Vietnam in 1978 as an example of proximate states informing reputations. Democratic Kampuchea in the mid-1970s identified the Vietnamese as possessing an ideological end of federalising Indochina (Farrell 1998, p. 195). Continued occupation and intervention by the Vietnamese in Laos, as well as historic tensions with

⁶ For a literary overview of reputation and its surrounding theories refer to Dafoe, Renshon and Huth (2014) and Jervis, Yarhi-Milo and Casler (2021).

Kampuchea itself, entrenched this perception. Following the Vietnamese invasion of Cambodia, the Chinese government sought to counter Vietnamese regional aggression (Thu-Huong 1992). Kampuchea's spatial proximity to Laos relative to Vietnam, as well as China's proximity to Kampuchea itself, informed Vietnamese reputation and in turn drove military reactions and behaviours. In this example, we can conceive how spatial relativity contributes to reputations for aggression and an increased likelihood of conflict escalation.

The spatial relativity of reputations means that the value of observing a state interacting with third-party states depends on the spatial proximity of the observing state with the third-party states. In turn, if the observed state acts cooperatively with states that are spatially proximate to the subject state, then the subject state will ascribe to the observed state a reputation for being cooperative, or what I refer to as a 'positive' reputation. If, on the other hand, the observed state acts aggressively towards states that are spatially proximate to the subject state, then the subject state will ascribe to the observed state a reputation for being aggressive, or what I refer to as a negative reputation (Crescenzi 2018, pp. 74–79).

As well as being spatially dependent, I also argue that reputations are *temporally* dependent (Crescenzi 2018, p. 51). The informational quality that a reputation provides about a state diminishes over time and in absence of any recent observations to be based off. If State A rarely witnesses State B interacting with states that are spatially proximate to State A, or if any such interactions occurred far in the past, then State A will have little information to base State B's reputation on. In this instance, we might consider State B as having no reputation of value to State A, rather than having no reputation at all.

A clear question that emerges from this is how do we account for recent *direct* histories of interaction between two states? Direct histories between states have already been shown to affect the duration of conflict (Krustev 2006; Long 2003), and so cannot be dismissed. Crescenzi argues that states defer to reputations when there is little recent direct history to depend on when a state wishes to predict the behaviour of another state (Crescenzi 2018). I would therefore expect that when a strong direct history exists, reputations matter less. However, I still expect that 'reputations' as they are measured in the quantitative study should indicate significance even if they matter only slightly to the perpetuation of conflict.

The basis for the expectations in my research and which informs my choice of explanatory variable is defined by this theory of reputation formation. A reputation is considered to be a type of information used to estimate a state's future intentions, based on the observation of its past behaviour towards third-party states that are spatially similar to the subject state.

REPUTATIONS FOR AGGRESSION

How do we conceptualise reputations as causally related to longer durations of interstate war? My answer begins by discussing reputation's effect on the onset of war to inform my expectation of how it affects its duration (Crescenzi 2007; 2018). Next, I argue that if reputations do inform the decisions states make during war, then I expect this to affect conflict duration through one or two proposed mechanisms. In the 'directed' mechanism,

I propose that the reputation of the *initiator* of a war is the most relevant for perpetuating conflict. In this mechanism, reputation is the cause of the commitment problem that prevents a pre-war settlement, and subsequently provides an explanation for the perpetuation of war. In the 'undirected' mechanism, it does not matter who initiated the war. Instead, it expects that shifts in relative power coupled with a reputation for aggression will result in longer wars.

This article's measurement of 'reputation' is taken from an extant study by Mark Crescenzi which asks whether reputations for aggressive behaviour result in an increased likelihood of conflict onset (Crescenzi 2007; 2018). This, in and of itself, is a controversial claim amongst theories of reputation which needs to be unpicked before exploring the mechanisms that I introduce.

Most literature on 'reputations' refers to what are called 'reputations for resolve'. Mercer defines 'resolve' as 'the extent to which a state will risk war to achieve its objectives' (1996, p. 1). The conventional theory is that a 'reputation for resolve' would function as a military deterrent (Alt, Calvert & Humes 1988; Huth 1988; 1997; Nalebuff 1991; Schelling 1966; Weisiger & Yarhi-Milo 2015). According to this theory, if a state escalated conflict and fought to victory more frequently when challenged by other states, demonstrating 'resolve', it would cause would-be adversaries to become increasingly averse to pursuing military confrontation lest they come across a foe so prepared to war. On the other hand, there are many arguments that suggest 'reputations' do not matter in any sense because they are too complicated, or only make up a small part of the wider concerns states consider when assessing the credibility of threats (Mercer 1996; Press 2005; Hopf 1994).

My argument is fundamentally inspired by Mark Crescenzi's observation that reputations correlate with an *increased* likelihood of conflict onset, contrary to the expectations of the deterrence camp (Crescenzi 2007; 2018). He writes that his 'core finding ... is that conflict is too highly correlated with incompetence in crisis management, and thus attempts to project a reputation of strength often end up translating into reputations for aggression' (Crescenzi 2018, p. 162). Put simply, when a state acts to demonstrate 'resolve' through military escalation in disputes, their peers interpret such action 'as incompetence, and thus as aggression' (Crescenzi 2018, p. 163). If a crisis emerges that involves a state with a reputation for 'incompetence' or 'aggression', other involved states will expect a militarised escalation from their aggressive adversary, and so will militarise themselves in anticipation of a war. Thus, 'violence begets violence'; preparation for war leads to war itself (Crescenzi 2018, p. 163).

Crescenzi's results indicate that state reputations for aggressive behaviour correlate with increased likelihood of conflict onset. If reputation is strong enough to shape the decisions of states and make war's *onset more likely*, then my expectation is that these beliefs ought to carry on into the war and affect the choices that would make war's *termination less likely*.

REPUTABLE COMMITMENT PROBLEMS

If a state with a reputation for aggression becomes involved in a war with another state, how does this reputation contribute to the perpetuation of the conflict?



Figure 1 | Directed reputable commitment problem.

I propose two different mechanisms that explain this which I call 'reputable commitment problems'. One is directed and the other is undirected.

The directed reputable commitment problem expects the reputation of the *initiator* to be the relevant factor in prolonging conflict. It is a helpful starting point both conceptually and theoretically. Conceptually, it is telling when a state that initiates a war against a target state already has a reputation for aggression in the target state's beliefs. It would imply that the initiator of war has, in recent times, behaved aggressively to comparable states, which at its extreme may resemble an imperial quest like Nazi Germany's invasions of neighbouring states in the years up to 1941 (Reiter 2009). Theoretically, it incorporates the failed negotiation process that results in commitment problems, identifying reputation as the cause of both war's onset and perpetuation, instead of shifts in relative capabilities.

Figure 1 illustrates how this mechanism works in a flow diagram. Key to the understanding of this mechanism is that the initiation of a war by a state with a reputation for aggression functions to confirm this belief for the target of war. Unlike the dispositional commitment problem proposed by Weisiger (2013, pp. 25–33), this mechanism does not update information through fighting. Rather, the act of aggression and violence is confirmation of a belief that is already held. Following the bargaining model of war (Fearon 1995), this mechanism identifies reputation as both the cause and perpetuating variable of conflict. If State B believes State A has a reputation for aggression or incompetence, then we would expect it be less likely to engage in a pre-war settlement as per the commitment problem, meaning any dispute is more likely to ferment into war. Furthermore, it presents a rationale for understanding why the war would go on for so long. If a state refuses to engage in negotiations because of its opposition's reputation for aggression, it would also prepare itself militarily to meet such aggression. Military preparation would then allow it to perpetuate conflict, as well as incentivising its continued resolve in eliminating an actor it sees as dispositionally aggressive.

This leads to my first hypothesis related to the directed reputable commitment problem:

H1: If the initiator of an interstate war has a reputation for aggression in the view of the target of war,

then this will lead to longer durations of conflict.

The undirected reputable commitment problem, illustrated in Figure 2, is not dependent on the reputation of the conflict's initiator. Instead, it functions in a similar way to the dispositional commitment problem, in that it starts with a shift in relative capabilities between states. The expectation is that if two states experience a shift in relative power, and one or both has a reputation for aggression, this will exacerbate the commitment problem as it arises. Consequently, with one or both states viewing their adversary as committed to war from the outset, they become incentivised to perpetuate conflict until they resolve the commitment problem through imposed material destruction. The undirected mechanism is a bit looser than the directed mechanism. It is difficult to account for any 'mutual' reputation between the two parties to a war. However, it seems rational as a way of explaining how a dispute over a state's rising status, coupled with a pre-war perception of aggressive reputations, might ferment into war, and furthermore provides an explanation for why it perpetuates.

I devise a second hypothesis to test the undirected reputable commitment problem:

H2: If a warring pair of states experience a pre-war shift in relative capabilities and one has a reputation for aggression, then this will lead to longer conflict.

In this section, I argued why it is that I expect 'reputation' to prolong the duration of conflict and the mechanisms through which I expect this to occur. First, reputations as I consider them are subjective constructions. Their importance is dependent on the subject state's spatial and temporal proximity to the observed behaviour that informs them. Second, I recounted the argument that reputations for aggression result in increased likelihood of conflict onset because they cause an observing state to anticipate war and thus militarily prepare for it. Finally, I articulated how I expect this to link to conflict duration through the directed and undirected reputable commitment problem mechanisms, both of which expect conflict duration to be prolonged by pre-war reputations for aggressive behaviour. The next section describes how I test my hypotheses using a quantitative approach that identifies where, if at all, there is validity

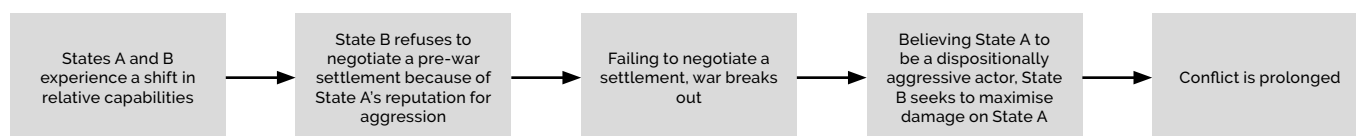


Figure 2 | Undirected reputable commitment problem.

to my arguments.

RESEARCH METHOD AND DATA SELECTION

In the first section, I claimed that, within the literature on conflict duration, we can infer that the past behaviour of states towards third-party states should have effects on the duration of interstate wars. In the second section, I introduced a theory of how reputations could prolong the duration of interstate conflict through two possible mechanisms. In this section, I explore these claims quantitatively to see how the empirical record holds across multiple cases. I chose to use a quantitative method because I want to make an initial exploration into a mechanism yet understudied. Using a qualitative analysis at this stage would be circumspect to confirmation bias in choosing a single, or multiple, case(s) because they appear to confirm my hypotheses. If the quantitative method is revealing of significant correlations across a varied sample of interstate wars, then this would give grounds for future research into case studies that appear to demonstrate the pertinence of reputation prolonging conflict duration.

DATA SOURCING AND METHOD SELECTION

The study of conflict duration has advanced considerably in using statistical methods to estimate correlations between variables (Bennett & Stam 1996; Kertzer 2016; Koch 2009; Langlois & Langlois 2009; Shirkey 2012; Weisiger 2013). Here, I have created a dataset by merging the datasets used in Crescenzi's (2007) study of conflict onset which introduces a variable for 'reputation' and Weisiger's (2013) study of conflict duration. The entries in the dataset drawn from version 4.0 of the Correlates of War (COW) list of interstate wars (Sarkees & Wayman 2010), which includes all interstate wars in the post-Napoleonic period. The dataset disaggregates multilateral conflicts into single dyadic partner entries; for example, the Second World War would be described through single pairings such as Germany and Britain. I have excluded entries according to Weisiger's five conditions of flagging: there is doubt that there were more than a thousand deaths, violating the definition of a war; some wars are better described as internationalized civil wars; some wars are not endorsed by the leaders; some wars have a period of intermission, raising doubt as whether to consider it two wars instead of one; and finally some multilateral wars were reaggregated for inclusion (Weisiger 2013, pp. 58–59).⁷ Using this application, the final dataset has 103 'primary observations' (Weisiger 2013, p. 58).

I use a semi-parametric Cox proportional-hazard model to attain my results (Tuma 2011/1994), the same method used by Crescenzi and Weisiger in their own studies. Also known as event-history analysis, this method indicates what the effects of variables included in the model have on the timing of a specified event (Tuma 2011/1994, p. 4). The specified event is the termination of conflict. Thus, the model estimates correlations between the explanatory variables and the likelihood of conflict terminating at any given time. This means that the covariates themselves are reversed to what one would expect when measuring conflict duration: instead of estimating the number of days until the conflict ends, it predicts the likelihood of it terminating at any given time.

⁷ To ensure the accuracy of this process, I consulted Weisiger directly through personal correspondence.

⁸ For a full and detailed explanation of how these values are calculated, as well as how the equation is derived, refer to Crescenzi (2007) and Crescenzi and Enterline (2001).

⁹ For a full and detailed explanation of the equation's rationale, refer to Crescenzi and Enterline (2001).

DEPENDENT VARIABLE: CONFLICT DURATION

The dependent variable measures the number of days it took for a conflict to end, taken from Weisiger's dataset (2012; 2013). The duration of a conflict generally remains one of the most salient measurements of the conflict's destructiveness, albeit with its own caveats. For example, there have been long protracted wars such as the Vietnam War which were not as destructive for every side as more intense wars such as World War II (Weisiger 2013, p. 60). Data on conflict duration is sourced from the Interstate War Initiation and Termination dataset (Fazal & Page 2015). The day that fighting started is used as the starting date and the day that it stopped as the end date. This is a trade-off to using, for example, the Correlates of War (COW) data which benchmarks initiation and termination using 'diplomatic developments like declarations of war or peace treaties' (Weisiger 2013, p. 60; Sarkees & Wayman 2010). Using these definitions may obfuscate political events which otherwise might constitute the start of war. For example, in the dataset, the Chadian reconquest of Northern Chad is used as the benchmark Chadian–Libyan War of 1987. This is a helpful turning point in this conflict as it marked when it transitioned for the Chadian state from an intra-state to inter-state in absence of any formal declaration at the time (Nolutshungu 1995, pp. 215–216).

EXPLANATORY VARIABLES: CRESCENZI'S REPUTATION SCORE AND SHIFTS IN RELATIVE POWER

The explanatory variable used comes from Crescenzi's (2007; 2012) studies on reputation and the onset of conflict. The reputation score (R_{ijN}) is measured using the conditions of reputation specified in my theoretical framework. That is, it measures the reputation of one state, i , in the view of state j through its interactions with multiple states k that are spatially proximate to j , with the following equation:

$$R_{ijN} = \frac{\sum_{k \neq i, j}^N IIS_{jk} S_{jk} C_{ikt}}{N - 2}$$

in which the reputation of state j in the view of state i (R_{ijN}) within a system size of N is measured by the sum of the interaction score of state j and k (IIS_{jk}), as well as the similarity between i and k , represented by S_{jk} and C_{ikt} , respectively, divided by the size of the state system minus two.⁸

In turn, the interaction scores between state i and states k for a given year t (i_t) are measured by the following (Crescenzi & Enterline 2001, p. 420):

$$i_t = i_{t-1} \left(e^{-\frac{\text{PeaceYears}_t}{\text{PrevDisp}_t + 1}} \right) - \frac{\sum_i^n \text{HostLev}_{it}}{\text{PeaceYears}_t}$$

in which PeaceYears_t is the number of years that the dyad has had of peace, whilst PrevDisp_t indicates the amount of time since the last militarised dispute. HostLev_i indicates the level of hostility, drawn from the COW Militarised Interstate Dispute dataset to account for 'the occurrence and severity of a militarized dispute for the given year t ' (ibid., p. 420).⁹ Hostile or cooperative relationships are indicated on an i_t score scale of –1

Explanatory Variables	Mean	S.D.	Min.	Max.	<i>N</i>
Minimum Reputation	-0.013	0.023	-0.137	0.015	103
Reputation of Initiator	-0.004	0.017	-0.137	0.018	95
Direct History	-0.151	0.301	-0.917	0.033	88
Minimum Reputation × Direct History	0.002	0.008	-0.011	0.061	85
Reputation of Initiator × Direct History	0.001	0.007	-0.013	0.061	78
Capability shift (10 year lag)	0.282	0.216	0.007	0.884	86
Log(War Intensity)	-6.61	2.03	-11.0	-1.67	102
Democracy Initiator	0.21	0.41	0	1	102
Loser Regime Type	-3.17	5.71	-10	10	93
Terrain	0.62	0.24	0.20	1.05	103
Contiguity	0.59	0.49	0	1	103
Relative Capacities	0.793	0.141	0.503	0.988	96
No. of Participants	2.41	0.76	2.0	6.0	103
Military Strategy	3.96	1.08	2	8	103
Major Power War	0.14	0.34	0	1	103
Cultural Difference	0.602	0.492	0	1	103
Duration (Days)	422.4	743.4	1	4293	103

Table 1 | Descriptive statistics.

to 1 respectively. Measurements are controlled against two measures of state *j* and states *k*'s spatial proximity: the COW Composite Index of National Capabilities (CINC) (Singer, Bremer & Stuckey 1972) measurement and Signorino and Ritter's *S*-similarity score for foreign policy (Signorino & Ritter 1999). Theoretically, the value has a range of -1 (perfectly aggressive reputation) to 1 (perfectly cooperative reputation), though as can be seen in Table 1, it has a practical range of -0.14 to 0.02. I then introduced the variable into Weisiger's dataset, lagging the entry by one year so that the score used for each observation was from the immediate or the most recent year preceding the war's onset.¹⁰ Finally, using version 4.0 of the COW list of interstate wars' definition of the 'initiator' of conflict (Sarkees & Wayman 2010), I created two versions of the reputation score, one which indicates the 'minimum' reputation of either party, and the second that indicates the reputation of the *initiator*. This was so I could test my two alternative hypotheses.

A second explanatory variable that I introduce accounts for shifts in relative power before a conflict. Again, I use Weisiger's own measurement, which is based off the COW's CINC score (Weisiger 2012; Singer, Bremer & Stuckey 1972). The CINC score accounts for the annual material power capabilities of states using six criteria—'total population, urban population, iron and steel production, energy consumption, military personnel, and military expenditure' (Weisiger 2013, p.

62). This variable accounts for shifts in relative capabilities with a ten-year time lag, measured by comparing how state A and state B's scores change relative to each other over a ten-year period. This assumes that leaders pay attention to shifts that have occurred in the past to draw their own hopes and fears of experiencing a relative rise or decline by anticipating that these trajectories will continue (Weisiger 2013, p. 61). The variable ranges theoretically from 0 to 1, with a larger number indicating a more significant power shift over the time in observation. Whilst the CINC score is an imperfect way of measuring relative capabilities, it has been used across multiple studies of conflict duration with significant results.

CONTROL VARIABLES

For the control variables, again, I use the same variables as Weisiger, as well as some of Crescenzi's state interaction variables—all of which have been shown to correlate with the duration of interstate conflict (Crescenzi 2011; Weisiger 2013). The choice of these variables was simple: replicating a pair of models from extant, published studies ensures its accuracy and validity. For this reason, I use the same control variables as Weisiger's default models (2013, p. 65; Weisiger 2012).

In total, I use ten different control variables. I control for the war's intensity, measured as the rate of death proportional to the national population sizes of

¹⁰ This was done for empirical as well as methodological reasons. 41 of the observations in the year that conflict was noted as commencing in Weisiger's set were missing in Crescenzi's replication set. Six of these had the observation value missing for multiple years before conflict onset, for example, the Mexican-American War of 1846 only had the reputation score from 1843 as the most recent observation. The Iraq-US war had the longest time break of 6 years. The empirical rationale, that the appropriate observation to use was the reputation score of the immediate or most recent year preceding conflict onset was arrived at through personal correspondence with Crescenzi himself.

the involved parties, using data personally collected by Weisiger from Clodfelter's Encyclopaedia of War Statistics (Clodfelter 2007) and from COW's National Military Capabilities dataset (Singer, Bremer & Stuckey 1972). This variable was also logarithmically scaled to account for skew (Weisiger 2012; Weisiger 2013, p. 65).

I also control for the regime types of the warring states (Fazal & Page 2015). First, I use a dichotomous variable coded as 1 if true, and 0 if false, indicating whether the conflict was initiated by a democratic regime (Weisiger 2012; Weisiger 2013, p. 64; Marshall, Jagers & Gurr 2010). Second, I control for the authoritarian regime of the losing state on a twenty-point scale, with -10 indicating most authoritarian, and 10 indicating most democratic (Weisiger 2012; Weisiger 2013, p. 64; Marshall, Jagers & Gurr 2010; also see Reiter & Stam 2002).

I include a variable on the terrain type that the war was fought on using data sourced from a study by Slantchev (2004). In this variable, a larger number indicates more rugged and less easily traversed terrain, whilst a smaller number indicates flatter and clearer terrain. I also use a dichotomous variable to control for contiguity, defined by whether the states at war share a land border, with the data sourced from version 3 of the COW contiguity dataset (Stinnet et al. 2002).

I control for the relative capabilities of the warring parties at the time of conflict's initiation, measured using the CINC scores of each state. This variable ranges from 0.5 to 1 'with higher values representing a more unequal distribution of capabilities' (Weisiger 2013, p. 65). I control for whether the conflict can be considered a 'major power war' using a dichotomous variable indicating if each state was defined as a major power by Levy's 'identification of major powers over time' (ibid., p. 65; Levy 1983). I include a variable controlling for the number of states that were involved in the conflict that were considered 'major participants' (Weisiger 2013, p. 65; see Cunningham 2006). I also control for the strategies employed by each side, using the coding system devised by Bennett and Stam (Weisiger 2013, p. 65; Bennett & Stam 1996). The lower numbers indicate the employment of 'blitzkrieg' strategies, which involve swift attacks, whilst lower numbers indicate the use of guerrilla and punishment strategies. Finally, I use Weisiger's dichotomous variable which determines if a conflict could be defined as a 'civilizational clash' between the main two parties, either based on incompatible political ideologies, or a clash of the broad categories of civilization defined in Samuel Huntington's infamous thesis (Weisiger 2013, p. 65; Huntington 1993; 1996; Haas 2005; Owen 2010).

From Crescenzi, I use two variables controlling for a history of direct interaction between the main two warring parties. This is the direct interaction score developed by him and Andrew Enterline (Crescenzi & Enterline 2001). This variable indicates on a scale on -1 to 1 whether the two main warring parties have a recent direct history that was respectively conflicting or cooperative in the same fashion at the reputation variable. It is necessary to include this in the study to control for the possibility that reputation, in the context of conflict duration, does become negated by direct histories. Consequently, I also include interaction variables between the two reputation scores and the direct history (Crescenzi 2007; 2018). The minimum

reputation interaction value comes directly from Crescenzi's dataset, whilst the initiator's reputation interaction variable was constructed by myself.

RESULTS AND DISCUSSION

To test my hypotheses, I ran four data models, the results of which can be seen in Table 2. The first two models test H1, which predicted that if the initiator of a conflict has a reputation for aggression, then we can expect to see a longer duration of conflict. Model 1 shows only the results for the effect of the initiator's reputation on conflict duration without the measure of a shift in relative capabilities, whilst controlling for all variables except for the direct history scores. Model 2 shows the results for the initiator's reputation with all other variables. Models 3 and 4 test my second hypothesis on the undirected mechanism, H2, which predicted that regardless of the initiator, either state having a reputation for aggression, when coupled with a shift in relative capabilities, would result in longer durations of conflict. Model 3 shows the results for the minimum reputation score without the measure of a shift in relative capabilities, whilst controlling for all variables except for the direct history scores. Model 4 shows the results for the minimum reputation score with all other variables included. In this model, I also allowed the reputation variable and the shift in capabilities to interact so that I could test the relationship between the minimum reputation and shifts in capabilities.

The values indicated are variable coefficients, rather than hazard. For interpretation, the coefficients are multiplied by the value of the variable that is inputted, and the resultant effect is to increase or decrease the likelihood of a conflict terminating at any given point in time by this total. This means that for any variable that has a range of exclusively positive values, a positive variable coefficient indicates an increased likelihood of conflict termination at any given point, and so correlates with shorter durations of war. However, because the 'reputation' value has a range of less than zero to greater than zero, it means that we are looking for a positive variable coefficient to support my hypotheses. This is because a positive coefficient, with a 'negative' reputation for aggression, will result in a *decreased* likelihood of conflict termination and, thus, longer wars.

RESULTS

The results are surprising. The directed reputable commitment problem hypothesis, that an initiator of conflict with a reputation for aggression, is indicated as incorrect. Whilst the results show that there is a statistically significant relationship at the ninety-fifth percentile between the reputation of the initiator of the conflict with the likelihood of the conflict terminating, the variable coefficient is negative. This means that if the state that initiates the war has a reputation for aggressive behaviour, then the likelihood of conflict terminating at any given point increases. This means that if the initiator of a war has a reputation for aggression, we can estimate the war to be *shorter*, rejecting H1.

The results also do not support the undirected hypothesis H2, which expects a lower 'minimum' reputation following a significant shift in material power to correlate with longer durations of conflict. Models 3 and 4 both indicate that there is no statistically significant relationship between the 'minimum'

Predictors	Initiator Reputation		Minimum Reputation	
	Model 1	Model 2	Model 3	Model 4
Reputation	-20.26*	-26.54*	-2.42	-8.717
Direct Conflict History		0.203		0.041
Reputation × Direct Conflict History		-84.89		-54.71
Capability shift (10 year lag)		-3.14***		-2.038*
Log(War Intensity)	0.164†	0.307**	0.142	0.272**
Democracy Initiator	0.337	0.789	0.426	1.039*
Losser Regime Type	0.040†	0.036	0.033	0.036
Terrain	-1.632**	-3.647***	-1.291*	-2.959***
Contiguity	-0.084	0.076	-0.271	-0.225
Relative Capacities	0.063	0.057	0.026	0.007
No. Participants	0.256	-0.017	0.106	-0.096
Military Strategy	-0.372*	-0.486*	-0.450**	-0.533*
Major Power War	-0.746†	-0.219	-0.894*	-0.836†
Cultural Difference	-0.243	0.011	-0.195	-0.227
Reputation × Capability Shift				23.067
Observations	84	63	91	68
Log Likelihood	36.01	51.99	35.18	35.18
AIC	568	378	632	425
χ^2 (Wald)	36.29	45.14	34.49	34.49

†p < 0.10, *p < 0.05, **p < 0.01, ***p < 0.001

Table 2 | Results for Cox proportional hazard models.

reputation of two states that engage in a war and the likelihood of it terminating. Furthermore, the interaction variable between the shift in relative capabilities and the reputation score does not show any statistical significance either.

For other variables that were statistically significant, the results replicated past studies which in turn helped to support their validity. Both Models 2 and 4 show that there is statistical significance in decreasing the likelihood of conflict terminating at any given point with an increased pre-war shift in relative capabilities, therefore correlating with increased conflict duration and replicating Weisiger's findings (2013, p. 69). In three out of four models, the variable for conflict intensity indicates that more intense conflicts are shorter (Weisiger 2013, p. 74). The polity variables which indicated whether the initiator of conflict was a democratic state, and the authoritarian level of the losing state, also replicated Weisiger's findings (Weisiger 2013, p. 72), with democratic states shown to fight in shorter wars, whilst authoritarian regimes appear to

grind out their defeats over longer periods. Wars that take place in areas that have less easily traversed terrain also tend to be longer, with all four models indicating statistical significance of this effect, again meeting expectations (Bennett & Stam 1996). The military strategy variable replicates Weisiger's results, 'with blitzkrieg wars shorter and guerrilla wars longer than conventionally fought conflicts' (Weisiger 2013, p. 74). Finally, conflicts that are fought between major powers are also longer in duration with statistical significance in three models. There was no statistical significance for any of the direct history scores, the variables on contiguity, relative capacities, number of participants, nor cultural differences.

DISCUSSION

These results confound the expectations of the theory employed in this article. Reputations, as they are considered in this study, do not affect conflict duration in a way that means they inform the dispositional commitment problem. This is evidenced in two separate parts of the

results. First, the variable coefficient of the initiator's reputation estimates that a reputation for aggression correlates with *shorter* conflict duration. Second, the lack of significance of either the minimum reputation score, or its interaction effect with a shifts in relative capabilities, indicates that reputation does not couple with shifts in power to affect conflict duration. Reputation's effect on conflict duration is not what I expected it to be.

What is particularly striking however, is that the reputation of the initiator is statistically significant. More so, it is statistically significant whilst the direct interaction scores were not. This indicates that in this model, past behaviour of the initiator towards third-party states has a more significant effect on conflict duration than the direct interactions of the warring pair. At minimum, this confirms my expectation that indirect interactions affect the decision-making processes of states that start and continue to be engaged in war. This ultimately means continued research into this relationship remains a valid and potentially fruitful endeavour.

There are a few potential explanations for these results. The first consideration is in the explanations for *limited* wars that are shorter and less destructive that are introduced by Weisiger (2013, pp. 33–53). One possibility is that the reputation of a state might create the settings for the 'informational mechanism' (Weisiger 2013, pp. 36–42) in which disagreement over an adversary's resolve or capabilities can lead to conflicts that are settled in fighting. In this case a 'reputation' might mask the truth of a state's material capabilities prior to the initiation of a war. A second suggestion is that a reputation for aggression functions as the initial dispute. If this is the case, then the outbreak of war might encourage third parties to intervene themselves early on, having borne grievances against the initiator, which as discussed in the literature results in shorter conflicts than if they made late interventions (Shirkey 2012).

Alone, however, these results do not provide enough information to give a definite answer. To fully explore reputation's effect on the conduct of war, there needs to be an investigation into at least two features that were outside of the scope of this article. First, how does the reputation of the initiator of a conflict affect the choice of military strategy the target of war makes? Studying this variable would give greater insight into the way pre-war perceptions affect in-conflict decisions more completely. Second, are there any correlations between the reputation of the initiator of conflict and the outcome? Knowing how reputation affects outcome will reveal information such as whether they are shorter

because the aggressive initiator overstretchers itself militarily.¹¹

Finally, qualitative studies of course would be invaluable. In particular, I believe that further study of the Iran–Iraq War of 1980–1988 is most worthwhile. Both states have positive reputations (that is, reputations for cooperation) prior to the onset of that war. Furthermore, Iraq especially was making ready regional alliances through which to leverage its bargaining position prior to its initiation of the war (McLachlan 1993, p. 29). Studying a conflict with such complex regional interactions (Karsh 1990) in the years preceding that turned into one of the longest and most destructive of the twentieth century (Ashton & Gibson 2013) would undoubtedly provide an excellent case study into the role that the past behaviour of belligerents towards third-party states plays in affecting conflict duration.

To summarise, reputations for aggressive behaviour do not appear to affect the bargaining process of war in the same way as the information updating process that occurs through fighting and which leads to dispositional commitment problems. However, the results have presented evidence to support the expectation that conflict duration is dependent on the past behaviour of the initiator of conflict. This at the least reveals new insights to suggest that reputations do matter in international politics. How they matter, however, remains to be investigated further.

CONCLUSION

Overall, this article sought to understand whether the reputations of states, informed by their past behaviour towards third-party states, affect the durations of conflicts in a way similar to dispositional commitment problems. This expectation was derived first from the observation that the perception of states caused decisions in the war that affected the duration of conflict. It was also derived from an observation that direct internal, external, and historical interactions affect the behaviour of conflicting dyads. My hypothesis that reputations for aggression would result in longer durations of war was shown to be false in my data models, however, the results are still valuable. First, it presented evidence supporting the claim that reputations *do matter* in affecting the duration of interstate conflict; they just do not matter in the way expected. Second, and following on from this, it leaves a large scope of future research to be conducted into this area, with scope for new hypothesis testing and qualitative analysis that can hopefully provide new insights.

¹¹ See, for example, Kennedy (2017/1987).

Alt, J. E., Calvert, R. L., and Humes, B. D. (1988). 'Reputation and hegemonic stability: a game-theoretic analysis', *American Political Science Review*, 82(2), pp. 445–467. Available at: <https://doi.org/10.2307/1957395>

Ashton, N., and Gibson, B. (2013). *The Iran–Iraq War: new international perspectives*. Routledge. ISBN: 9781138831902.

Bennett, D. S., and Stam, A. C., III. (1996). 'The duration of interstate wars, 1816–1985', *American Political Science Review*, 90(2), pp. 239–257. <https://doi.org/10.2307/2082882>

Clodfelter, M. (2007). *Warfare and armed conflicts: a statistical reference to casualty and other figures, 1500–2000*. McFarland. ISBN: 978-0786412044

Copeland, D. C. (2000). *The origins of major war*. Cornell University Press. ISBN: 9780801437502

Crescenzi, M. J. C. (2007). 'Reputation and interstate conflict', *American Journal of Political Science*, 51(2), pp. 382–396. <https://doi.org/10.1111/j.1540-5907.2007.00257.x>

Crescenzi, M. J. C. (2011). *Replication data for: Reputation and interstate conflict*. Harvard Dataverse, V1. <https://doi.org/10.7910/DVN/UMQC2D>

Crescenzi, M. J. C. (2018). *Of friends and foes: reputation and learning in international politics*. Oxford University Press. <https://doi.org/10.1093/oso/9780190609528.001.0001>

Crescenzi, M. J. C., and Enterline, A. (2001). 'Time Remembered: A Dynamic Model of Interstate Interaction', *International Studies Quarterly*, 45(3), pp. 409–431. <https://doi.org/10.1111/0020-8833.00207>

Cunningham, D. E. (2006). 'Veto players and civil war duration', *American Journal of Political Science*, 50(4), pp. 875–892. <https://doi.org/10.1111/j.1540-5907.2006.00221.x>

Dafoe, A., Renshon, J., and Huth, P. (2014). 'Reputation and status as motives for war', *Annual Review of Political Science*, 17, pp. 371–393. <https://doi.org/10.1146/annurev-polisci-071112-213421>

Deutsch, K. W. (1954). *Political community at the international level: problems of definition and measurement*. Doubleday.

Farrell, E. C. (1998). *The Socialist Republic of Vietnam and the law of the sea: an analysis of Vietnamese behaviour within the emerging international oceans regime*. Kluwer Law International. ISBN: 9789004479302.

Fazal, T., and Page, F. (2015). *Interstate war initiation and termination (I-WIT) data set*. Qualitative Data Repository, QDR Main Collection, V4. <https://doi.org/10.5064/F6JW8B8D>

Fearon, J. D. (1994). 'Signalling versus the balance of power and interests: an empirical test of a crisis bargaining model', *Journal of Conflict Resolution*, 38(2), pp. 236–269. <https://doi.org/10.1177/0022002794038002004>

Fearon, J. D. (1995). 'Rationalist explanations for war', *International Organization*, 49(3), pp. 379–414. <https://doi.org/10.1177/0022002794038002004>

- doi.org/10.1017/S0020818300033324
- Haas, M. L. (2005). *The ideological origins of great power politics, 1789–1989*. Cornell University Press. ISBN: 9780801443213.
- Hopf, T. (1994). *Peripheral visions: deterrence theory and American foreign policy in the Third World, 1965–1990*. University of Michigan Press. <https://doi.org/10.3998/mpub.13938>
- Huntington, S. P. (1993). 'The clash of civilizations?', *Foreign Affairs*, 72(3), pp. 22–49. Available at: <https://www.foreignaffairs.com/articles/united-states/1993-06-01/clash-civilizations>
- Huntington, S. P. (1996). *The clash of civilizations and the remaking of world order*. Simon and Schuster. ISBN: 9780684844411.
- Huth, P. K. (1988). *Extended deterrence and the prevention of war*. Yale University Press. ISBN: 9780300050615.
- Huth, P. (1997). 'Reputation and deterrence: a theoretical and empirical assessment', *Security Studies*, 7(1), pp. 72–99. <https://doi.org/10.1080/09636419708429334>
- Jervis, R., Yarhi-Milo, K., and Casler, D. (2021). 'Redefining the debate over reputation and credibility in international security: promises and limits of new scholarship', *World Politics*, 73(1), pp. 167–203. <https://doi.org/10.1017/S0043887120000246>
- Karsh, E. (1996). 'Geopolitical determinism: the origins of the Iran–Iraq War', *The Middle East Journal*, 44(2), pp. 256–268. Available at: <https://www.jstor.org/stable/4328101>
- Kennedy, P. (2017). *The rise and fall of the great powers: economic change and military conflict from 1500 to 2000*. HarperCollins, 1987. ISBN: 9780006860525.
- Kertzer, J. (2016). *Resolve in international politics*. Princeton University Press. ISBN: 9780691171609.
- Koch, M. T. (2009). 'Governments, partisanship, and foreign policy: the case of dispute duration', *Journal of Peace Research*, 46(6), pp. 799–817. <https://doi.org/10.1177/0022343309339250>
- Krustev, V. L. (2006). 'Interdependence and the duration of militarized conflict', *Journal of Peace Research*, 43(3), pp. 243–260. <https://doi.org/10.1177/0022343306063930>
- Langlois, C. C., and Langlois, J.-P. P. (2009). 'Does attrition behavior help explain the duration of interstate wars? a game theoretic and empirical analysis', *International Studies Quarterly*, 53(4), pp. 1051–1073. <https://doi.org/10.1111/j.1468-2478.2009.00568.x>
- Levy, J. S. (1983). *War in the modern great power system, 1495–1975*. University Press of Kentucky
- Long, S. (2003). 'Time present and time past: rivalry and the duration of interstate wars, 1846–1985', *International Interactions*, 29(3), pp. 215–236. <https://doi.org/10.1080/03050620304594>
- Marshall, M. G., Jagers, K., and Gurr, T. R. (2010). *Polity IV project: political regime characteristics and transitions, 1800–2010*. Center for Systemic Peace. Available at: <https://www.systemicpeace.org/polity/polity4.htm>
- McLachlan, K. (1993). 'Analyses of the risks of war: Iran–Iraq discord, 1979–1980', in Rajaei, F. (ed.) *The Iran–Iraq War: the politics of aggression*. University Press of Florida, pp. 24–31. ISBN: 9780813011769.
- Mearsheimer, J. J. (2001). *The tragedy of great power politics*. W. W. Norton. ISBN: 9780393349276.
- Mercer J. (1996). *Reputation and international politics*. Cornell University Press. ISBN: 9780801430558.
- Nalebuff, B. (1991). 'Rational deterrence in an imperfect world', *World Politics*, 43(3), pp. 313–315. <https://doi.org/10.2307/2010397>
- Noluthungu, S. C. (1995). *Limits of anarchy: intervention and state formation in Chad*. University of Virginia Press. ISBN: 9780813916286.
- Owen, J. M., IV. (2010). *The clash of ideas in world politics: transnational networks, states, and regime change, 1510–2010*. Princeton University Press. ISBN: 9780691142395.
- Press, D. G. (2005). *Calculating credibility: how leaders assess military threats*. Cornell University Press. ISBN: 9780801443435.
- Reiter, D. (2003). 'Exploring the bargaining model of war', *Perspectives on Politics*, 1(1), pp. 27–43. <https://doi.org/10.1017/S1537592703000033>
- Regan, P. M. and Stam, A. C. (2000). 'In the nick of time: conflict management, mediation timing, and the duration of interstate disputes', *International Studies Quarterly*, 44(2), pp. 239–260. <https://doi.org/10.1111/0020-8833.00157>
- Reiter, D. (2009). *How wars end*. Princeton University Press. ISBN: 9780691140605.
- Reiter, D., and Stam, A. C. (2002). *Democracies at war*. Princeton University Press. ISBN: 9780691089492.
- Sarkees, M. R., and Wayman, F. (2010). *Resort to war: 1816–2007 (correlates of war)*, CQ Press. ISBN: 9780872894341.
- Schelling, T. (1966). *Arms and influence*. Yale University Press. Available at: <https://www.jstor.org/stable/j.ctt5vm52s>
- Shirkey, Z. C. (2012). 'When and how many: the effects of third party joining on casualties and duration in interstate wars', *Journal of Peace Research*, 49(2), pp. 321–334. <https://doi.org/10.1177/0022343311431597>
- Signorino, C. S., and Ritter, J. M. (1999). 'Tau-b or not tau-b: measuring the similarity of foreign policy positions', *International Studies Quarterly*, 43(1), pp. 115–144. <https://doi.org/10.1111/0020-8833.00113>
- Singer, J. D., Bremer, S., and Stuckey, J. (1972). 'Capability distribution, uncertainty, and major power war, 1820–1965', in Russett, B. (ed.) *Peace, war, and numbers*, pp. 19–48. Sage.
- Siverson, R. M., and Starr, H. (1991). *The diffusion of war: a study of opportunity and willingness*. University of Michigan Press. <https://doi.org/10.3998/mpub.12963>
- Slantchev, B. L. (2004). 'How initiators end their wars: the duration of warfare and the terms of peace', *American Journal of Political Science*, 48(4), pp. 813–829. <https://doi.org/10.1111/j.0092-5853.2004.00103.x>
- Stinnet, D. M., Tir, J., Schafer, P., Diehl, P. F., and Gochman, C. (2002). 'The Correlates of War (COW) project direct contiguity data, version 3', *Conflict Management and Peace Science*, 19(2), pp. 59–67. <https://doi.org/10.1177/073889420201900203>
- Thu-Huong, N.-V. (1992). *Khmer–Viet relations and the Third Indochina Conflict*. McFarland. ISBN: 9780899507170.
- Tuma, N. (2011). 'Event history analysis', in Dale, A. and Davies, R. B. (eds.) *Analyzing social and political change: a casebook of methods*. SAGE, 1994, pp. 136–166. <https://doi.org/10.4135/9781849208611>
- von Clausewitz, C. (1984). *On War*. Translated and edited by Howard, M., and Paret, P. Princeton University Press, 1832. ISBN: 9780691018546.
- Waltz, K. (1979). *Theory of international politics*. Random House. ISBN: 9780394349428.
- Weisiger, A. (2012). *Replication data for: Logics of war: explanations for limited and unlimited conflicts*. Harvard Dataverse, V4. <https://doi.org/10.7910/DVN/9IDCRB>
- Weisiger, A. (2013). *Logics of war: explanations for limited and unlimited conflicts*. Cornell University Press. ISBN: 9780801451867.
- Weisiger, A., and Yarhi-Milo, K. (2015). 'Revisiting reputation: how past actions matter in international politics', *International Organization*, 69(2), pp. 473–495. <https://doi.org/10.1017/S0020818314000393>