

U.S. Foreign Policy: The Puzzle of War

Branislav L. Slantchev

Department of Political Science, University of California, San Diego

Last updated: January 15, 2016

It is common knowledge that war is perhaps the costliest and riskiest enterprise that human beings can engage in. This very fact should give polities very powerful incentives to avoid it. And yet, the record of human history in that respect is spectacularly dismal: fighting wars seems to have been more or less a regular activity since the earliest anthropological evidence we can find. This is puzzling. We cannot just say, as we often do, that war is politics with admixture of other means. We must also explain why resorting to this particularly awful type of “admixture” is desirable or at least necessary. In this lecture, we shall take a (very brief) look at possible explanations of this puzzle. That is, we shall collect a set of variables that seem to have been useful in understanding why wars begin and why they end. It is these variables that we shall then use in our analysis of how particular societies fought particular wars, and how these wars in turn helped shape these societies.

Although it seems that the nature of the conflict should be an important variable in our explanation of war, there is a powerful argument to be made that the search for causes can abstract away from the issue, at least as a first cut, and instead focus on answering why political communities might be unable to resolve a conflict despite their desire for peace. Now, at a very basic level, one might argue that polities go to war because they like fighting (this is akin to the “expressive” motivation for war which we discarded in favor of the instrumental model). If polities go to war for war’s sake, then the question of why they fail to reach a peaceful agreement does not even arise. Here we shall assume that peace is generally desirable, war is generally undesirable, but that it is not the case that polities are ready for peace at any cost. These seem like fairly mild assumptions but they are enough to create a serious puzzle about the occurrence of war altogether. Let us put these assumptions together so you can see what I mean.

Consider a (very abstract) setting in which there are only two polities, which we shall call “actors”. We shall label the first one A , and the second one (unimaginatively) B . To keep the exposition clear, I shall refer to actor A as “he” and to actor B as “she.” These actors wish to divide some benefit. For the sake of simplicity, let’s call this benefit “territory” and assume that each actor desires more territory. To make things even more abstract and simpler, let us represent that territory by a line of length 1. Points on this line represent the share of territory that A controls, from 0 (none) all the way to 1 (all of it). Naturally, for any point x on that line, $1 - x$ represents B ’s share. One way to think about this is to put A ’s capital at 0 and B ’s capital is at 1. Any point x on the line represents the distance of the border from A ’s capital, and $1 - x$ represents the distance of the border from B ’s capital. Let the location of the existing border be at q (the status quo demarcation). Figure 1 shows

this representation.

We shall represent conflict in a very simple way. First, we shall assume that war is *costly* — these costs are from the destruction of life and property that is inevitable in every war, but also from supplying and maintaining the military for battle, from dislocations caused to the economy from the redirection of resources away from civilian to military use and the withdrawal of manpower to the armed forces, and possibly from distortions caused by the government's policies (we shall deal with all of these in some detail later). Let $c_A > 0$ represent the war costs to actor A , and $c_B > 0$ represent the war costs to actor B .

Second, we shall assume that war is *risky* — neither of the participants can be assured of victory. This uncertainty arises from the friction that we talked about, both environmental and strategic. To simplify matters even more so that the logic is crystal clear, we shall assume that war is a lottery with only two possible outcomes: an actor can either win it or lose it, draws are not allowed. With this simplification, we can let $p \in (0, 1)$ represent the probability that A prevails in the war, in which case $1 - p$ is the probability that A loses (and so B wins). This probability depends on many factors such as the relative size and quality of the armed forces, the strength of the supporting economies and ability to finance the fighting, the quality of command, as well as the unpredictable environmental factors. We shall call this probability the **distribution of power** because it summarizes the likely outcome of the war as determined by the relative power of the two polities.

Finally, we shall assume that war is a *winner-take-all* affair: the victorious polity absorbs the entire territory of the defeat opponent. This means that p also represents the expected division of the territory if the actors fight a war. For example, if actor A has $p = 0.45$ chance of winning the war, then he will end up with the whole territory (1) with that probability and will lose everything (0) with $1 - p = 0.55$ probability. The expected division, then, is $(0.45)(1) + (0.55)(0) = 0.45 = p$, as we said. Note that we have not assumed anything in particular about the relationship between the status quo distribution of the territory and the distribution the actors expect will prevail if they fight.

We now have all the elements necessary to represent the instrumental value of war in a simple abstract manner. What does actor A expect to happen if war breaks out? With probability p he will win, in which case he will gobble up the entire territory (1). With probability $1 - p$ he will lose, in which case his opponent B will take everything, leaving polity A with no territory (0). Regardless of the outcome, A must pay the costs of war, c_A . Thus, the **expected value of war** for actor A is

$$W_A = p(1) + (1 - p)(0) - c_A = p - c_A.$$

Since this is what A expects to get from war and because he can always choose to fight if he wants to, he will never agree to peaceful concessions that leave him with less territory than this expected share. Thus, W_A represents the **minimal terms** that A would demand in any negotiation with B . Conversely, $1 - W_A$ represents the **maximal concession** that A would be willing to make to B peacefully. In other words, A would agree to any division of the territory that puts the border to the right of his minimal terms. Since the existing distribution of the territory exceeds A 's expected value of war, he is **satisfied**, and we would not expect him to fight to overturn the status quo.

Turning now to the other actor, we ask the same question: What does actor B expect to happen if war breaks out. With probability $1 - p$ she will win, in which case she will grab

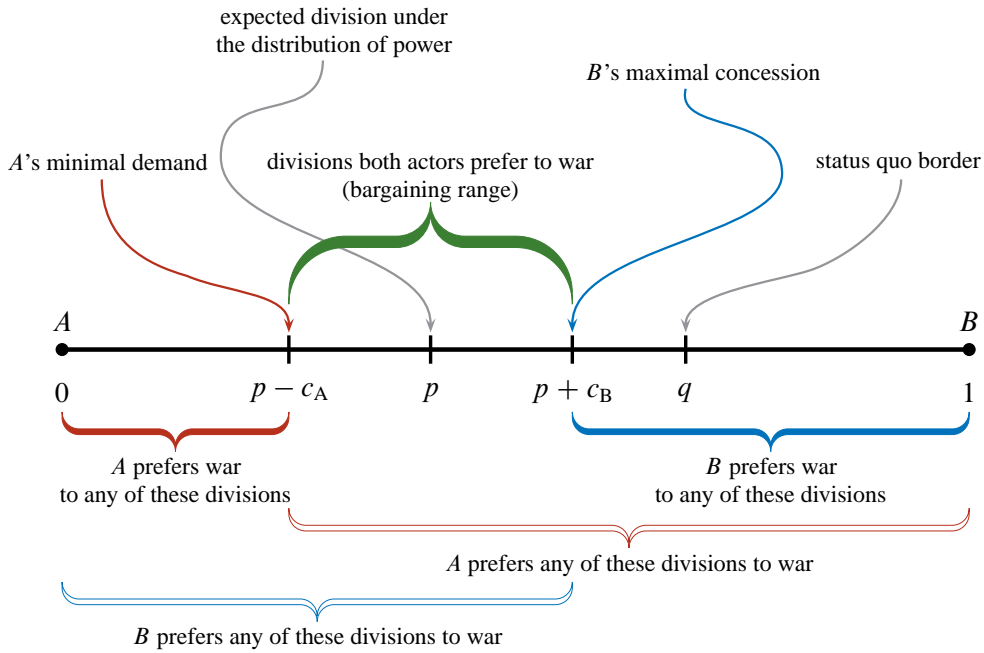


Figure 1: The Puzzle of War. (Points on the line represent A 's share.)

the entire territory, and with probability p she will lose and get nothing. Regardless of the outcome, B must also pay costs of war, c_B . Thus, the expected value of war for actor B is

$$W_B = (1 - p)(1) + p(0) - c_B = 1 - p - c_B.$$

Since B 's capital is at 1, we can find the maximal concession B will make by marking off a segment of length W_B starting from the end of the line: $1 - W_B = p + c_B$, as indicated in Figure 1. Thus, B would agree to any division of the territory that puts the border to the left of this point (her minimal terms). Since the existing distribution of territory is less than B 's expected value of war, actor B is **dissatisfied**, and so she would fight to overturn the status quo.

It is worth emphasizing that this bargaining model of war is a representation of the concept of war as an instrument used in pursuit of political objectives. The political objective here is the benefit to be divided (e.g., territory). Victory and defeat are both defined in terms of that political objective. War has no value in itself: it is just a costly and risky way to divide that benefit. We have modeled war as a costly and risky process that culminates in either victory or defeat and we have not allowed either actor to influence the conduct of war or war to influence policy (although we have obviously allowed the threat of war to influence policy in the determination of the minimum terms actor would accept in lieu of fighting).

We now state a simple but perhaps non-obvious fact: *since the costs of war are strictly positive and peace is free, there always exist distributions of territory that simultaneously satisfy the minimal demands of both actors.* Mathematically, we just note that the sum of

their minimal terms is strictly smaller than the size of the benefit (territory) to be divided:

$$W_A + W_B = p - c_A + 1 - p - c_B = 1 - (c_A + c_B) < 1.$$

In other words, the simple fact that war is costly engenders the possibility of peace.

We can actually say a bit more than merely asserting the possibility of peace. We can even locate the set of distributions of territory that would be mutually acceptable to both actors. For this we take the intersection of their maximal concessions. Recalling that all divisions to the right of $p - c_A$ are those that A would agree to without a fight, and that all divisions to the left of $p + c_B$ are those that B would agree to without a fight, we conclude that all divisions between these two boundaries must be agreeable to both. This is called the **bargaining range**, and it is the set of all possible divisions of the territory such that agreeing to such a division leaves both actors with more benefit than their expected values for war. In other words, both actors are better off with any division from this set than going to war. The range comprises divisions that are better than the minimal terms of each actor and less than the maximal concessions they are willing to make.

It is immediately obvious that if the war is costly enough for both actors, the bargaining range can extend to cover the entire territory. Intuitively, if war is that bad, then any peace is preferable to fighting. Thus, for war to occur it has to be the case that fighting is not expected to be exceedingly costly. Not surprising, of course, so we will not dwell on this point except to note that this model might have a hard time accounting for the extreme destruction that many actual wars do entail. We shall return to this point in a bit when we discuss how the *cumulative* costs of war can easily exceed the value of the benefit even when actors are choosing their optimal strategies. We can restate our “simple but perhaps non-obvious fact” as follows: *if war is costlier than peace, then the bargaining range always exists*. It is crucial to realize the importance of this implication. We are saying that the mere supposition that war is costlier than peace means that there always exist deals that can make both actors better off than fighting. But if this is so, then how can we explain war? If there are peace deals that both polities can live with, why would they ever fight?

Does it have something to do with an actor’s dissatisfaction with the status quo? Nowhere in this discussion did we make use of the location of the border except to note that B would rather fight than live with it. We have now asserted the possibility of peace, but clearly such a peace must involve a revision of the border in B ’s favor. Perhaps surprisingly, it does not matter what the status quo distribution of the territory is for the conclusion that peace must prevail. Before we can establish this, observe that at most one actor can be dissatisfied with the status quo. For example, suppose that B is dissatisfied. Because $1 - q < W_B$ means that $1 - W_B < q$, we can reduce this to $q > p + c_B$, as depicted in Figure 1. We now prove that when B is dissatisfied, A must necessarily be satisfied. For this, observe that $W_A + W_B < 1$ can be rewritten as $W_A < 1 - W_B < q$, and so A is satisfied because the status quo benefit exceeds its expected value of war. (We can do an analogous calculation by supposing that A is dissatisfied and then showing that in this case B must be satisfied.) Thus, it cannot be the case that both actors are dissatisfied with the status quo: either they are both satisfied, or else only one of them is dissatisfied.

Consider now a simple scenario (not depicted in Figure 1), where the existing distribution is within the bargaining range. Since the benefit of living with this division is strictly higher

than the expected values of war for the actors, they are both satisfied, and so neither would fight to overturn the status quo. Moreover, this division is likely to be stable in the sense that it will not be revised through peaceful negotiations. To see this, note that moving the border in either direction must make one of the actors worse off, and this actor would simply refuse to agree to it. Since the other would not fight to force the move, the border will remain at its status quo location.

Perhaps less obviously, peace will prevail even if the status quo is not in the bargaining range (as in Figure 1) although the territorial division will not be stable in that case. In our example, B is dissatisfied with the existing distribution and would fight unless A agrees to move the border. War, however, would still not occur because A is ready to make enough concessions to satisfy B 's minimal demands: any border in the bargaining range represents such a deal. We cannot say where, exactly, the new border would be but we can say that it will lie in the bargaining range. We conclude that when one of the actors is dissatisfied, then the distribution of territory will be revised such that this actor becomes satisfied, and so the border is not stable but peace nevertheless prevails.

Another possibly surprising implication of this model is that even actors who are certain to lose the war might be able to obtain concessions from their opponent. For example, suppose that A is certain to win: $p = 1$. Clearly, B will be willing to give up everything to avoid war since $W_B = -c_B < 0$, and so relinquishing the entire territory is preferable to fighting. Does it follow that A will be able to get everything? Not necessarily. A 's expected value for war is $W_A = 1 - c_A < 1$, and so his minimal terms lie to the left of B 's capital. The bargaining range comprises all deals that save A the cost of fighting and obtaining sure victory. Thus, it is entirely possible that B can get away with a division of the territory that leaves it with something rather than nothing. Even actors who are certain to be defeated retain some bargaining power because they can still impose the costs of fighting on their opponent. This gives their opponent an incentive to offer a (small) concession and avoid having to pay these costs.¹

Since we already know that it cannot be that both actors are dissatisfied with the status quo, these two situations exhaust all possible relationship between the status quo distribution of territory and the distribution of power (which determines the satisfaction with the status quo). In all of these, war does not occur. So how can we explain war? The bargaining model of war suggests that we should be looking for reasons that prevent actors from locating a deal in the bargaining range. Broadly speaking, there are three reasons this might happen. First, they might be unsure as to where the bargaining range really is, and so they do not know what concessions are reasonable. Second, they might be afraid of the consequences of not fighting or it might be difficult to commit to upholding the peace deal. This can happen when one actor fears that the other might become much stronger in the future and that it would then force a redistribution of the benefit that is very undesirable.

¹An early statement of this logic can be found in Paul Kecskemeti. 1958. *Strategic Surrender: The Politics of Victory and Defeat*. Santa Monica: Rand Corporation. Available online at <http://www.rand.org/pubs/reports/R308.html>, accessed December 25, 2012. The idea that the losing side can still extract some concessions was called "strategic surrender" but perhaps because of the unfortunate name was badly misunderstood by US Senator Stuart Symington, who apparently thought that RAND was promoting defeatist policies. In an ironic climax of this misconception, US Congress passed a prohibition on using tax dollars to study defeat or surrender of any kind.

Third, it could be that peace is not free, as the model assumes, but that each actor must incur costs related to maintaining the distribution of power that underpins the territorial division. If that is the case, it might be worth eliminating the threat and reducing the defense burden than living with a costly defense establishment in the long run. In this case the bargaining range might not even exist. Let us now illustrate these possibilities in the basic model of war we have developed so far.²

²This is not to say that these are the only possibilities. For example, if those that decide on war stand to gain disproportionately more from it than society on average and suffer disproportionately lower costs than society on average, then the decision-makers might be biased toward fighting. Under some circumstances, concern with retaining power domestically can distort the incentives of the ruler who might choose to take the gamble of war instead of facing the unpleasant prospect of being removed from office.