The Democratic Peace and the Causes of War

1 The Democratic Peace

There are strong links between the size of the winning coalition, the position of the median voter in it, the size of the selectorate, and international behavior. Democratic leaders who must respond to large selectorates and large winning coalitions will be very sensitive to public policy failures because they do not have sufficient resources to buy off the support of the winning coalition with private goods. Authoritarian leaders, on the other hand, can secure their stay in office by distributing private goods to their relatively small winning coalitions. Therefore, such leaders will not be very sensitive to policy failures. This leads to several implications:

- Democratic leaders will be more careful than autocratic ones in the fights they choose to fight. They will generally avoid risky wars and will therefore tend to win the ones they choose to fight. Empirically, it is the case that democracies are disproportionately more likely to win the wars they fight. This effect has nothing to do with whether democracies fight better, it is simply a result of self-selection into types of conflicts they are likely to win.
- When elections in a democracy come closer, leaders will pursue vigorously policies that will deliver good results that can influence their electoral prospects. During the Cold War, the Soviets understood this cycle and (a) avoided challenging presidents they liked prior to elections (e.g. Kennedy), and (b) escalated their demands when the president was weak electorally and had incentives to deliver some agreement with them to get the votes.
- Because democratic leaders are more careful and tend to avoid escalating crises unless they are sure they can win, democracies will either pursue accommodating policies or adopt a very aggressive posture in preparation for war. This implies that two democracies are extremely unlikely to find themselves at war.

  This is a well-established empirical regularity called **the democratic peace** and which really has several components to it:

  - Democracies do not fight with each other but settle disputes peacefully;
  - Democracies fight non-democracies quite a bit, are more likely to challenge non-democracies than vice versa, and tend to win the wars they pick to fight.
  - Democracies tend to fight shorter wars with lower casualty rates.

With all this fighting, it's not surprising that our next topic is on the causes of war. The main puzzle about war is that wars are costly but states nevertheless fight them. There are three types of arguments that one can make to explain this puzzle.

First, one may argue that leaders are sometimes irrational. They ignore the costs because they misunderstand how their actions can produce them. We shall not concern ourselves with these types of explanations for the obvious reason that even though it is entirely possible that some leaders are irrational, it is not probable. Moreover, assuming irrationality, as we have seen, does not permit fruitful analysis because any outcome is consistent with the assumption.

Second, one may argue that leaders do not pay the costs of fighting, which are borne by the citizens and the soldiers, but they do reap the benefits. This is an entirely valid line of research and we have already discussed it when we talked about the principal-agent problem. We saw that leaders, although not paying the costs directly, are still subject to selectorate sanction. Every leader that wants to stay in office must satisfy the demands of the selectorate. We found that different sizes of the selectorate and the winning coalition exert different degrees on pressure on the leaders. From this discussion we obtain an explanation for one amazing empirical regularity, the democratic peace.

We now take a step back to consider the so-called *rationalist* explanations of war. These involve leaders who directly suffer the costs and directly reap the benefits. What we want to know is this: even if we assume the best possible setting (i.e. no gambling for resurrection incentives, or domestic pressures), will states still end up fighting?

2 Rationalist Explanations of War

Rationalist arguments are quite prominent in the scholarly literature. There is something intellectually appealing in an explanation that does not depend on crazy or stupid leaders. The way people generally approach this question is by asking why the expected utility of war sometimes outweighs the expected benefits of remaining at peace. The reasoning is that when this happens, even rational leaders who act in their states' interest will go to war. In that sense, most (perhaps all) wars are wanted.

Asking whether the war is wanted misses an important puzzle. Consider what happens once war is over. Both sides have suffered enormous costs to obtain the outcome that usually involves one of the states getting the upper hand and achieving some or all of its political objectives. If both sides suffer costs, then wars are **inefficient** after they are fought because if both sides agreed on the outcome prior to fighting, they would have achieved the same result and avoided the costs of getting there. It does not matter whether the costs are small or big, or that one or both sides viewed the benefits as exceeding the costs. As long as there are costs, wars will be inefficient.

A rationalist explanation must therefore account for this inefficiency. The fundamental puzzle we want to explain can be phrased as follows. Since both sides know that they should expect to pay costs of fighting, they both have strong incentives to avoid them by negotiating a settlement short of war. Why do rational players fail to reach such a settlement. War is apparently a result of bargaining failure. Armed with our knowledge of

bargaining, we can now provide an answer to the puzzle.

3 The Bargaining Range

Suppose two states, A and B, have preferences on issues represented on the interval from 0 to 1. (Refer to Figure 1.) State A's ideal point is at 1, and so it prefers resolutions as close to 1 as possible. State B, ideal point is at 0, and so it prefers resolutions as close to 0 as possible. For convenience, we may think of x as the proportion of territory between A and B that is controlled by A. Let the utilities from outcome x be $u_A(x)$ and $u_B(1-x)$. For convenience, let $u_i(0) = 0$ and $u_i(1) = 1$ where $i = \{A, B\}$. This simple setup captures the main ideas that (a) states have opposing preferences (whenever state A gets a higher utility from an outcome closer to its ideal point, state B's utility for the outcome declines), and (b) there is a range of issues at stake.

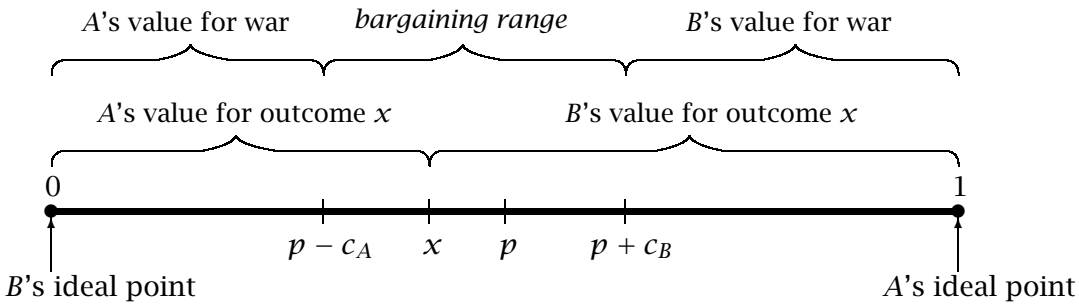

Figure 1: The Bargaining Range.

As before, we model war as a costly lottery. If states fight a war, state A will prevail with probability p and, as the winner, it will choose the outcome at its ideal point. So, A's expected utility of war is

$$EU_A(\text{War}) = pu_a(1) + (1-p)u_A(0) - c_A = p - c_A.$$

Similarly, B's expected utility of war is

$$EU_B(\text{War}) = pu_B(1-1) + (1-p)u_B(1-0) - c_B = 1 - p - c_B = 1 - (p + c_B).$$

Assume that costs are positive and that they reflect not only costs of fighting but also the values players put on winning the issues at stake. That is, if A did not see much value in winning the war, then c_A would be large even if the direct costs of fighting were rather small.

Framing the situation in these terms immediately makes the puzzle obvious. As you can see (and as can be proven formally), there always exists a set of negotiated settlements that both sides prefer to fighting. That is, as long as both sides pay costs for fighting, there always exists a **bargaining range**. In Figure 1, this is the set of settlements between $p - c_A$ and $p + c_B$. Anything in this range is better for both players than their respective expected utilities of war because it is closer to their respective ideal points.

The expected utilities of war represent the players' **reservation levels**. That is, the minimum they would ever agree to in negotiations. This makes perfect sense, a player would not rationally agree to anything worse than what he expects to get by fighting.

Let me give you a simple numerical example. Suppose two people are bargaining over the division of \$100. If they agree on a split, each gets to keep whatever they agree to. However, for a price of \$20 each, they can fight it out, in which case each player has a 50% chance of winning. Each player's expected utility of fighting is $(.5)(100)+(.5)(0)-20=30$. This implies that (a) neither player would accept a deal that gives him less than \$30, and (b) any deal that gives a player anything from \$31 to \$69 would leave both players strictly better than fighting.

The simple fact that war is inefficient after it is fought opens up a bargaining range with settlements whose peaceful negotiation would leave both players better off, and so just because players may derive positive expected utility from war does not explain why it occurs. War is the result of **bargaining failure**. Given what we know about bargaining, what can account for such a failure?

4 Private Information with Incentives to Misrepresent

A very influential argument in international relations is that states go to war when they disagree on their relative strength. That is, each state is too optimistic and believes that it can easily win in a short war at no great cost. In war, it is said, the only surprise is that one side that expected to win actually lost it. How come both sides are optimistic about their chances at the same time?

To make this example somewhat more concrete, consider our bargaining over \$100 situation again. Suppose each player was optimistic and thought his chances of winning a fight are 80%, in which case each player's expected utility for fighting is $(.8)(100)+(.2)(0)-20=60$. Neither player would accept less than \$60, and so a bargain becomes impossible. Given these expectations, it would be rational for both players to fight it out.[1] Such conflicting expectations would certainly shrink, or even eliminate, the bargaining range. So, the question now becomes why would states form these conflicting expectations.

4.1 Private Information and Conflicting Expectations

The only way truly rational players could disagree over their estimates about some outcome is if they possessed **private information** relating to it. That is, fully rational people who have the same information will always arrive at the same expectations about an outcome. The only way they could form conflicting expectations is if they knew something the other player did not. So, private information can account for the discrepancy in expectations.

Certainly, private information abounds, and it is especially egregious in military issues. States guard their military secrets rather jealously, and each has superior information about the state of its own armed forces than the adversary can hope to get even with the best of

[1] More generally (and back to Figure 1), suppose that state A expects to win with probability p but state B expects to win with probability r such that $p+r>1$.

spies. Thus, an explanation based on private information would satisfy our requirements for a fully rationalist account. According to it, states fail to locate the bargaining range because they disagree over their strength, and so their expected utilities of fighting are too high, making a negotiated settlement impossible.

This almost brings us to a satisfactory result but not quite. To see this, note that players will certainly be aware of the possibility for such mutually contradictory wildly optimistic estimates of their relative strengths. They also know that it cannot be the case that both are right at the same time. In fact, they know that there is some underlying objective probability of winning, and the real outcome will be realized according to that probability rather than their estimates of it.

If players could communicate and share their privately known information, they would arrive at a common estimate of the probability of winning. But once they do that, we would be back to the situation in Figure 1, and so players would be able to locate the bargaining range and negotiate a settlement within it. Private information by itself is therefore insufficient to explain bargaining failure. At least in principle, communication should resolve the problem.

4.2 Incentives to Misrepresent

Why does communication often fail to resolve the problem? Why can't players simply communicate all their privately held information in order to arrive at mutually consistent estimates of military strength, which in turn would enable them to strike a bargain and avoid the costly fight?

Because players have strong incentives not to communicate truthfully. That is, players have incentives to **misrepresent** their private information. While they want to avoid war, they also want to obtain the best possible settlement. But to get the best possible settlement, they need to convince their opponent that their chances of winning are correspondingly high. That is, they have to influence the opponent's expectations in such a way that the opponent would prefer to give them a good deal rather than fight it out.

But, as we have seen time and again, once you get into the business of persuading the opponent, talk becomes cheap. Every player would have an incentive to posture as being strong, resolved, and likely to win the war. To see this, suppose player A conditioned its behavior on the message received from player B, and so demanded more or less depending on that communication. If messages are costless, then B would always send the same message, the one that would cause A to make the smallest possible demand. But if every type of player, from the strongest to the weakest, sent the same message, then communication becomes worthless because it reveals nothing. As we saw before, talk is cheap in situations like these.

Maybe costly signaling can help? Players certainly can engage in **costly signaling**, the idea being that strong types can send messages that weak types cannot afford to, and so the communication actually carries information with it. If the other player knows that mobilization is too costly for a weak or irresolute opponent, then observing mobilization should cause him to increase its estimate of the probability that it is actually facing a strong opponent.

States can (and do) engage in costly signaling. In addition to mobilization (which, as I explained to you earlier is not only costly but very risky as well, and so even more informative), states can build weapons, sign alliances, or create domestic political costs, all in order to send signals that would be informative.

We have already seen two ways of how leaders can use domestic politics to render signals costly. In the first, increasing **audience costs** made it possible for leaders to become locked into a position where they would prefer war to backing down, and so the leader with the lower audience costs would have incentives to strike a deal sooner than a leader with higher audience costs if they both wanted to avoid war.

The other explanation turned on the presence of **domestic opposition**, which constrained the leaders by wither giving or withholding its support for foreign policies. Because the opposition is only likely to support wars that are expected to provide great benefits (and are likely to oppose everything else), withdrawing support sends a signal that the state is either weak or irresolute, thereby limiting the leader's ability to bluff. By the same logic, however, when the opposition supports the war, it sends the signal that the state is strong and resolute, and thereby conveys information that the leader could not have done by itself. Again, the difference is that the opposition has incentives to act differently in different circumstances, and so tacit communication is informative.

The costlier the signal the more informative it is. The problem is that to make signals really costly, the risk of war must be rather large. If there is no risk of war, signals are reduced to cheap talk. The higher the risk, the more informative they are. The problem, of course, is precisely the presence of this risk. We have seen how incentives to preempt may render crisis situations unstable. Generally, rational players may choose to run the risk of inefficient war in order to signal their will to fight unless given a good bargain. When this happens, war may result.

In addition, states also have strong incentives to conceal their capabilities out of concern that their revelation would weaken them militarily. If I communicate precisely how I plan to defeat you, I not only reveal my privately known information, but I also enable you to build your defenses and therefore successfully resist my challenge. So, not only would I lie about my capabilities because I want to convince you I am strong, but I would also lie because revealing them would make me weak. In cases like this even costly signaling would not help because I have no desire to let you know anything about my private information.

5 Dynamic Commitment Problems

We now turn to another rationalist explanation, this time having nothing to do with incomplete information. Even if players had complete information, they could still fail to strike a bargain if for some reason they cannot trust each other to uphold the deal.

Recall that under anarchy, agreements must be self-enforcing. That is, there is no authority that can hold states to their promises. This gives rise to dynamic commitment problems of the sort we've discussed already. In essence, I may be prevented from doing something today because I am unable to credibly commit to doing something else tomorrow.

Let's look at the model in Figure 1 again. Suppose military strength is derived, at least, in part from the amount of territory one controls. This is not an unreasonable assumption. Suppose further that both players have complete information about the current state of affairs, and they see the game exactly as we do. Clearly, they would agree to some deal in the bargaining range.

Suppose the deal is x, which is well within the range, and it is in B's favor. The territory is revised accordingly and, say, a year later, the states find themselves in a situation where the probability of winning is now located at x. Notice how the bargaining range still exists except that it has shifted in the direction toward B's ideal point. This makes sense: having obtained a chunk of territory last time around, B is now in a stronger position.

Should B choose to press demands against A, then the new deal must fall somewhere in the new bargaining range, and it is very likely that B would be able to get an even better settlement. But this would shift the bargaining range even closer to B. Generally, the stronger B becomes, the more will it be able to extract from A even without fighting a war.

Of course, A would see this dynamic from the very beginning and may refuse to settle on x even though it is in the initial bargaining range. Its refusal is completely rational because it knows that by agreeing it will makes itself vulnerable to future demands from B.

Note that it is not the case that A fears that B would attack it in the future. Rather, A fears that it would have to concede more to B without fighting (because we have complete information).

So, the problem is B's ability to demand more in the future when it has obtained favorable deals in the past. When the game is placed initially, B would clearly prefer to promise that it would not demand more in the future. But B cannot credibly commit to this because if given the chunk demanded today, it will have incentives to ask for more tomorrow. Again, this is the familiar dynamic commitment problem.[2]

The commitment problem would also exist if states had **offensive advantages**. That is, if the probability of winning was higher if one struck first. This is the rationale of preemptive war, and we have discussed some of it. If states can choose to go to war at any time during the negotiations and there are first-strike advantages, then the bargaining range may shrink and disappear.

For example, suppose that p_f is the probability that A wins if it attacks first, and p_s is the probability that it wins if it attacks second. If there are offensive advantages, then $p_s < p < p_f$. Since both can attack whenever they wish, a peaceful resolution exists only if no player has an incentive to defect unilaterally from it. So, it must be the case that

[2]This dynamic commitment characterizes Hitler's escalating demands during the 1930s, which eventually led to the Second World War. At first, he remilitarized the Rhineland (which Germany was not supposed to do under the terms of the Versailles Treaty that ended the First World War). Then, he effected the *Anschluss* with Austria. Then, he demanded (and got) the Sudentenland from Czechoslovakia. With each step, Britain and France became more and more convinced that Hitler's demands were unbounded. After each new gain Hitler made copious promises that it would be the last. He was believed at first, but his credibility stretched to the breaking point when he annexed the rest of Czechoslovakia. By the fall of 1939, neither Britain nor France believed that he would make no further demands in the future, so when Hitler demanded access to Danzig from the Poles, the two supported their defiance. To everyone's misfortune, by this time Hitler had also become convinced that neither Britain nor France would actually go through with its threats.

$x > p_f - c_A$ and $1 - x > 1 - p_s - c_B$, which, after rearranging terms gives

$$p_f - c_A < p_s + c_B,$$

which is the real bargaining range. Obviously, as offensive advantages increase, (p_f becomes much larger than p_s), the bargaining range shrinks and, in the extreme cases, disappears altogether. Under anarchy, states may not be able to commit credibly not to use their offensive advantages, which makes these agreements unenforceable.

6 Summary

- The principal-agent problem in two-level games suggests that democracies will not fight other democracies, although they will fight non-democracies regularly; democracies will also tend to win the wars they fight, and in doing so they will be quicker and suffer fewer casualties. These empirical regularities are well-established and are collectively known as the **democratic peace**.
- A *rationalist explanation of war* views war as a **bargaining failure**, requires an answer to the central puzzle: Since wars are **inefficient** once fought, why can't rational players negotiate an appropriate settlement without fighting?
- The **bargaining range** always exists as long as there is some underlying objective probability of one player winning the war, and as long as both suffer some costs. Each player's expected utility of war is his **reservation level**, which is the smallest deal he would accept.
- There are generally two strict rationalist explanations of war:
  - **Private information with incentives to misrepresent**, which explains how rational players can form inconsistent optimistic expectations about the war because they hold privately known information, and how they may fail to communicate that information through diplomatic means (cheap talk) or through costly signals that generate risk of war. Players do want to avoid war but they also want to do well in bargaining. Given the private information about their capabilities or resolve, they have incentives to misrepresent this information, and so their signals will be discounted. States cannot always use diplomatic means to find mutually preferable settlements, and usually the only way to communicate information is by costly actions that generate real risk of war.
  - **Dynamic commitment problems**, which explain why players may not be able to credibly promise to uphold the deal in the future, and so are prevented from striking it today. Under anarchy, all agreements must be self-enforcing, and when they are not (either because of offensive advantages or ability to exploit current gains for future military means), a deal may becomes impossible. Whenever states cannot credibly promise to uphold the deal, a bargain may become impossible even when both are fully aware of the relative costs and benefits of fighting, and when they agree on their relative strengths.