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Third-party diplomacy

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Abstract: Since the beginning of the Refugee Crisis in 2015, the political resolution of armed conflicts has gained in importance and urgency at the international level. The German government is a case in point. In this period, it increased its financial commitment to preventing, managing and ending civil wars, including through third-party diplomacy, by a factor of five. However, practical efforts in conflict resolution have been held back, among other things, by an incomplete understanding of the nature of armed conflict, including the lack of a concise theoretical model and an indiscriminate use of the terms “third-party” and “mediation”. Based on a simple contest theory model, this paper presents three generic options for a political resolution of armed conflicts through the involvement of a third party: mediation, persuasion and imposition.

This proposition relies on ten insights: (1) Third-party diplomacy is defined as the involvement of equidistant (impartial) and outcome-indifferent (neutral) third parties in the resolution of armed conflict. (2) Warfare - regardless of legal and moral concerns and despite the human suffering it entails - can be an individually profitable strategy for achieving political, economic, group or individual goals. (3) Given a party's willingness to fight, its ability to fight, measured by its perceived probability of combat success (i.e. the ratio of military capabilities), determines the likelihood of an outbreak of war. (4) Peace is the result of a learning effect of the parties in the course of war and can be interpreted as a stationary equilibrium of military capabilities. (5) A negotiated transition from war to peace is only feasible in a quarter of all conceivable military configurations (endogenous peace). In such cases, conflict parties can contract a mediator to enable an endogenous settlement (mediation). (6) The scenario of a “mutually hurting stalemate”, postulated in the mediation literature as the main metric for conflict “ripeness”, corresponds to only 2.7% of all conceivable military configurations. Endogenous settlements are more likely in situations of one-sided and two-sided weakness (each approx. 11%). (7) In the remaining three quarters of all conceivable military configurations, at least one of the parties to the conflict has no interest in a peaceful settlement. In such cases, third parties may self-appoint as peacemakers (exogenous peace). (8) Through the targeted generation and provision of confidential information, a third party can influence the calculus of the parties to a conflict and create conditions for a peaceful settlement (persuasion). (9) Through credible threats of or imposition of sanctions, or through credible threats of or use of military force, third parties can influence the warring parties' calculus in such a way that they become willing to negotiate (imposition). (10) Market-based third-party diplomacy (mediation) and hierarchy- based third-party diplomacy (persuasion and imposition) are mutually exclusive. Third parties with sufficient (military) capabilities to persuade or impose have a commitment problem that prevents them from successfully competing in the market for mediation mandates.

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"It is, in truth, not the mediators who bring about the peace treaties, but it is the corresponding willingness of the contracting parties that brings about the conclusion of the treaty"

Abraham Wicquefort (1681): L'Ambassadeur et ses Fonctions; quoted in: Repgen (1998); translation by the author

1. Introduction

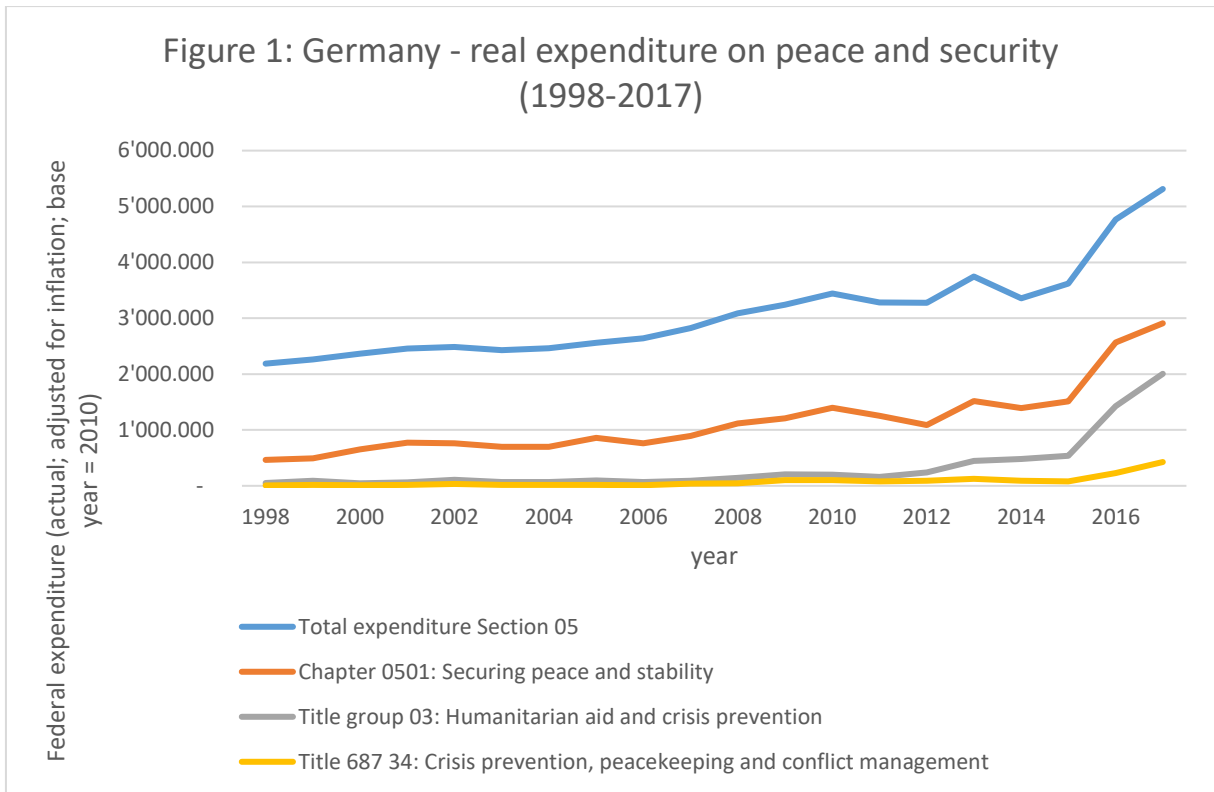
1.1. The political and fiscal salience of civil wars

The study of war and peace is one of the most important research questions of our time. This is illustrated by staggering figures of the recent past: since the end of the Second World War, between 3 and 8 million soldiers have fallen in interstate wars. In the same period, between 5 and 10 million fighters died in civil wars worldwide. In addition, there are approximately 25 million civilian victims (Ray & Esteban, 2017). Wars are also seen as an enormous obstacle to development, with massive negative effects on the national economy and the life chances of those affected. Ray and Esteban (2017) cite studies that estimate the global cost of civil wars at 8% of annual global GDP or calculate that global GDP would be 14.3% higher today if there had been no armed conflict since 1960.

Beginning in 2015, dealing with the effects of wars in Germany and Europe has become one of the highest political priorities. According to the United Nations, in the first half of 2017 about 68.5 million people fled war and violence - the highest number since the end of the Second World War. In 2015 alone, about 1.3 million refugees migrated to Europe, a large part of them to Germany. For Germany, the influx of refugees has considerable fiscal implications: in 2016, €21.7 billion was made available from the federal budget for all levels of government as part of a needs-based approach, and in 2017 the additional burden on the federal budget amounts to €20.8 billion. Almost one third of this budget is earmarked for "combating the causes of migration": in 2016 and 2017, the German federal government made € 7.1 billion and € 6.8 billion respectively available for this purpose. For 2018 and 2019, € 6.9 billion each are planned. This is intended to tackle the root causes of migration such as armed conflicts and political persecution.

The increase in funding is based on the assumption that the influx of political refugees can be reduced through conflict resolution on the ground. The Federal Government supports the political solution of armed conflicts with so-called stabilization measures (Title 687 34: Crisis prevention, peacekeeping and conflict management; see yellow line in figure below), such as mediation. In 2016 and 2017, it spent 247 and 465 million euros, respectively, on this, and 351 and 300 million euros, respectively, are planned for 2018 and 2019. This corresponds to a seventy-fold increase in real expenditure in this area over the last twenty years (a more detailed breakdown of the figures can be found in Gehrmann (2019a)).

Figure 1: Germany - Real expenditure on peace and security (1998-2017)



Source: Own calculations; based on budgets and accounts of the German Ministry of Finance

The numbers in Figure 1 show that the activity as a third party in conflict resolution has no tradition in German foreign policy. In contrast to bilateral peace policy - détente and reconciliation between two states in conflict - which Willy Brandt (Brandt, 1971) established as a foreign policy mandate in Germany back in the 1970s, peace mediation is - with a few exceptions¹ - new territory for the Federal Government. This is set to change: mediation in peace processes has a central place in the Federal Government's guidelines on crisis prevention and is regarded as an increasingly important instrument of a forward-looking foreign policy (Bundesregierung, 2018)². As Figure 2 shows, in 2017, almost 10% of the German Foreign Office's budget was spent on crisis prevention, peacekeeping and conflict management.

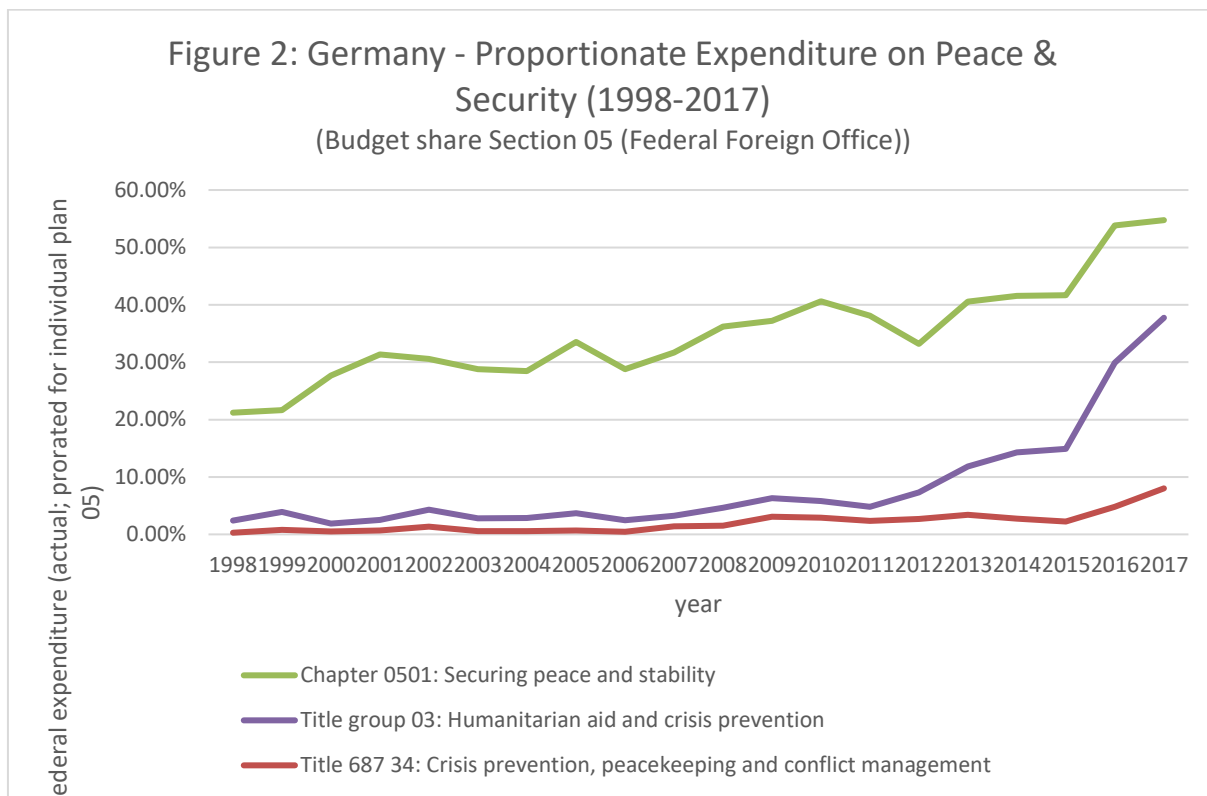
Mediation is associated with a particularly high expected impact, since the final settlement of an armed conflict can also reduce its humanitarian costs (during migration or in the host country). At the same time, as the large number of unresolved armed conflicts makes clear, the task is extremely demanding. In this sense, mediation is a political instrument with a special risk profile: a large peace dividend in the event of success is offset by relatively low costs, but success is difficult to achieve and, accordingly, rare ("low probability, high impact").

¹ Cf. Schwanzitz (2003)

² "Peace mediation refers to mediation between conflict parties in formal and informal negotiation processes. It serves the prevention and management of intra- and interstate conflicts and is therefore a priority of preventive policy" (Bundesregierung, 2018, p. 77).

Investments in mediation are akin to "venture capital for peace" and require a certain willingness to take risks.

Figure 2: Share of expenditure on peace and security in the budget of the German Foreign Office (1998-2017)



Source: Own calculations; based on budgets and account of the German Ministry of Finance

1.2. Objective and structure of the paper

This paper is a contribution to the debate on the value of third parties in the transition from war to peace. It is a theoretical paper which integrates results of empirical research. The central finding of the paper is that the political resolution of conflicts can, depending on the context, require the involvement of a third party, through either mediation, persuasion or imposition. Mediation is a market-based strategy of third-party diplomacy that requires intangible resources such as political equidistance from the conflict parties (impartiality), outcome indifference (neutrality) and a credible commitment to confidentiality. Persuasion and imposition are hierarchy-based third-party strategies that necessitate material resources, above all military resources, private information and designated finances.

The essay is organized as follows: Section 2 gives a theoretical overview of the emergence of war and peace. Section 3 explains the emergence of *endogenous peace* and the value of *mediation* in the transition from war to peace. Section 4 outlines the creation of *exogenous peace* and the strategies of *persuasion* and *imposition*. Section 5 concludes.

1.3. Overview of the literature

Over the past two decades, social science research has made considerable progress in the theoretical and empirical analysis of war and peace (on economic research, see (Dechenaux, Kovenock, & Sheremeta, 2015; Jia, Skaperdas, & Vaidya, 2013; Kimbrough, Laughren, & Sheremeta, 2017) on political science research (Fearon, 2007; Fey & Ramsay, 2011; Kydd, 2015; Powell, 2002). Research on third-party diplomacy in particular has been carried out internationally since the 1980s, using the term “mediation” in an encompassing, indiscriminate manner. Touval (1985), Zartman (1995) and Bercovitch (1996) pioneered this research. In their book on “International Mediation”, Greig and Diehl (2012) give the most complete overview to date of the results of political science research. Rohner (2018), in a comprehensive and critical evaluation of the literature, finds mixed and mostly inconclusive evidence for third-party diplomacy and points out methodological weaknesses in the literature. He makes the case for a more empirically rigorous approach to the study of peace. On the level of theory, in recent years there has been impressive progress, led by scholars such as Johannes Hörner, Adam Meirowitz, Massimo Morelli, Kristopher Ramsay, and Francesco Squintani (Horner, Morelli, & Squintani, 2015; Meirowitz, Morelli, Ramsay, & Squintani, 2019). They developed a theory of mediation which is based on ground-breaking insights by Roger Myerson, winner of the Nobel Prize in economics in 2007, and correspondingly termed “Myerson mediation”.

A separate strand of literature stems from practitioners of domestic mediation, which Moore (2014) summarizes comprehensively. He mainly deals with mediation as a method of alternative dispute resolution, common in business and in interpersonal relationships, which is mainly motivated by social psychology and places great value on procedure and communication. Kirchhoff (2008) applies this methodology to armed conflicts. The main difference between the two strands of literature is the fact that the latter propagates an approach that is successfully applied under the umbrella of the rule of law, while the former is applied in a space that is marked by the absence of the rule of law. This distinction is important, but often overlooked. It explains the different strategic approaches of the respective literatures.

1.4. Clarification of terms

1.4.1. Third-party diplomacy vs. mediation vs. third-party intervention

This article deals with the opportunities and limits of third-party diplomacy, understood as the involvement of third parties in the prevention or resolution of armed conflict. Third-party diplomacy comprises the same array of strategies as the Anglo-Saxon interpretation of “international mediation”, i.e. 'facilitative', 'formulative' and 'coercive' mediation (Beardsley, Quinn, Biswas, & Wilkenfeld, 2006; Zartman & Touval, 1985).³ The main reason for this choice of terminology is the substantial downside associated with the indiscriminate use of the term

³ For example, in the German-speaking world, peace mediation is reduced to a certain understanding of mediation with a view to the methodology adopted from civil mediation ('facilitative, interest-based mediation') (Clemens, 2017; Kirchhoff, 2008).

mediation. This indiscrimination creates substantial confusion, both in research and in practice. In research, it led to flawed study designs, due to the fact that different mechanisms are lumped together in the same “mediation” basket and analytically treated as equals. In practice, for reasons of political optics, there is a temptation to use the term mediation, which implies a voluntary, non-coercive process, for a de facto involuntary, coercive process. In order to avoid this pitfall, this paper will refer to the different third-party strategies as mediation, persuasion and imposition.

In addition, third-party diplomacy is not to be confused with third-party intervention. The latter term was introduced describing military intervention in an ongoing conflict (see for example Regan 1996, Carment & Rowlands 1998). However, in practice, the intervener often does not fulfill the criteria of a third party, but is rather a party to the conflict, either “balancing” the adversary supporting the weaker side, or “bandwagoning” on the side of the stronger party (Powell 2017).

1.4.2. Third parties versus first, second and fourth parties

In order to understand the dynamics of an armed conflict, it is important to distinguish between the different types of parties involved. The first party (A; first mover) and the second party (B, second mover) are at war; their objective is to win the prize (i.e. control over a territory, a natural resource, etc.).

The third party (C) is not party to the conflict. It is neither allied with the first or second party, nor does it have political and/or economic interests at stake.⁴ In his German-language handbook on diplomacy, Widmer (2014) introduces the notion of “third-state diplomacy”. It distinguishes between “good offices”, where the third country does not have a political role, and “mediation”, where the third country has a political role. This definition falls short on two levels: on the one hand, states are only one of several conceivable actors. The term “third party” also includes international organizations, non-governmental organizations and individuals and is therefore more appropriate. On the other hand, third parties can have different roles in a conflict. They can be contracted by the conflict parties as service providers (i.e. facilitators (“good offices”) and mediators) or intervene on their own account (by definition without pursuing national interests, i.e. being outcome indifferent).

The fourth party is a party with a similar interest in conflict resolution as the third party, but a different function (in an armed conflict there is usually only one third party). Fourth parties can provide political, financial or logistic support to the third party. They are often states with an agenda of peace promotion or civil society organizations. The former usually operate at the official level (“track I”), e.g. by forming so-called groups of friends or contact groups. The latter are often active at the non-official level (“track II” or “track III”), e.g. organizing academic or civil society dialogues.

⁴ This distinction reflects a similar proposal made by Dixit (2009), who distinguishes between first-party, second-party and third-party systems of governance.

2. War and peace: a contest theory perspective

Third-party diplomacy usually takes place in the context of an armed conflict. In armed conflicts, a fundamental distinction is made between interstate wars and intrastate "civil wars". As we will see, the distinction is irrelevant for understanding the conflict. Both types of war follow the same logic: the loser can be removed from the domain in which it directly competes with the winner. Therefore, it makes sense to first outline the theoretical framework of decision-making in foreign or domestic conflict situations. We define conflict as "the pursuit of incompatible goals by different groups" (Ramsbotham, Miall, & Woodhouse, 2011, p. 34).

Necessary condition for war is the willingness to fight. This requires the existence of any kind of conflict-inducing incompatibility between the parties. The motivation manifests itself in a jointly defined goal of a politically constituted group. It serves to mobilize group members to achieve the common goal (usually the elimination of incompatibility) through warfare. According to Ray & Esteban (2017), much of armed conflict is due to the dispute over economic resources:

"Even the most horrific conflicts, those that seem entirely motivated by religious or ethnic intolerance or hatred, have that undercurrent of economic gain or loss that flows along with the violence, sometimes obscured by the more gruesome aspects of that violence but never entirely absent. From the great religious struggles of the past to modern civil wars and ethnic conflicts, we can see — if we look hard enough — a battle for resources or economic gain: oil, land, business opportunities, or political power (and political power is, in the end, a question of control over economic resources)."

A look at the data suggests that low opportunity costs on the individual level (in the sense of a weak labour market with few earning opportunities and/or low wages), or the existence of weak governments, increase the likelihood of war. The assumption that economic inequality triggers conflict within a society ("poor versus rich"), on the other hand, is not empirically confirmed. Rather, the *uneven* economic development of various groups (in terms of relative growth) seems to have a conflict-promoting effect. Finally, the existence of a high degree of ethnic or religious polarization in a society (in extreme cases two equally large, clearly distinguishable groups) increases the probability of conflict (Ray & Esteban, 2017)

Sufficient condition for war is the ability to fight. An incompatibility may be removed by peaceful or violent means. If a political decision-maker is faced with the question of how to deal with a conflict, he basically has two options for achieving his goals: *negotiating* or *fighting* (Chadefaux, 2011; Fearon, 2007; Powell, 2002). He must consider which option is more promising for the group he represents. The analysis of military capabilities plays a central role. In other words, even if a party is willing to fight, it is often not a feasible option. The feasibility of warfare can only be determined when a party compares its own military capabilities with those of the opponent.

In a joint effort, political scientists and economists have made significant progress over the last two decades in the theoretical modelling and empirical analysis of the balance between

negotiation and warfare. In particular, the development of the economic theory of contests (cf. Konrad (2009)) and its application to war and peace have enabled substantial progress. The current state of research is briefly outlined below. It is based on the assumption of complete information, i.e. the parties have all the necessary information at their disposal and at the same time know that the other party is aware of this fact.

2.1. The calculus of war, or war as a profitable investment

In order to make a strategic decision about war or peace, two feasibility tests must be carried out. First, the *net present value*⁵ of warfare, i.e. the expected *return on warfare*, is to be determined.⁶ In a second step, the *probability of contest success*, i.e. the likelihood of military victory, has to be determined.

2.1.1. Ability to fight: The military contest function

The contest function goes back to the groundbreaking work of Jack Hirshleifer (Hirshleifer, 1989, 2000, 2001). Hirshleifer was the first economist to systematically model the previously neglected allocation mechanism "contest" (in the sense of conflict, tournament, legal dispute, etc.) and apply it to war (Hirshleifer, 1995, 2001). The contest function is used to determine the respective probability of success of two military counterparts.

The *probability of military victory* p_A of party A (with: $p_A + p_B = 1$; $p_B = 1 - p_A$) is a function of the *aggregated fighting effort* of the opponents, F_A or F_B . The aggregate combat deployment is composed of military forces (combat personnel, logistic personnel) and military capital (weapons, ammunition, transport, supply). These are each supplemented by the *combat effectiveness parameter* b_A or b_B . Combat effectiveness refers to the fact that better military technology, greater experience, better information or a more efficient command structure can amplify or dampen military operations (for b_A or b_B : $0 < b < 1$).⁷ The combination of fighting effort and fighting effectiveness yield the military capability of a warring party. In addition, a *decisiveness parameter* d is introduced. Decisiveness describes the degree to which military superiority is translated into military success. This is mainly used to model frictions on the battlefield, especially the nature of the terrain (mountains and jungle as retreat areas), but also exhaustion of combatants or incomplete information about the enemy. For high friction (= low decisiveness), $d < 1$; for low friction (= high decisiveness), $d > 1$. An example: military history teaches us that naval battles usually have a high decisiveness (the defeated party's fleet is completely destroyed and loses all control over its maritime territory), while guerrilla wars in

⁵ The net present value is a key figure of the dynamic investment calculation. It results from the sum of the present values of the revenue surpluses of a project over its entire duration (Trossmann 2013).

⁶ The "battle test" described here deliberately ignores international law, humanitarian or ethical aspects. Likewise, the possible intervention of additional parties, including the resulting changes in military calculations, is specifically excluded in this analysis. The aim of this simplified approach is to demonstrate the military consideration which a commander-in-chief necessarily (also) has to make.

⁷ "Battles are thus often a contest of organizational forms; the army whose command structure first cracks under pressure is the loser" (Hirshleifer, 1987, p. 6).

hard-to-reach areas have a low decisiveness (intractable conflicts in Vietnam, Colombia or Afghanistan) (Hirshleifer, 2000, p. 781).

Figure 3: Probabilities of success in contest

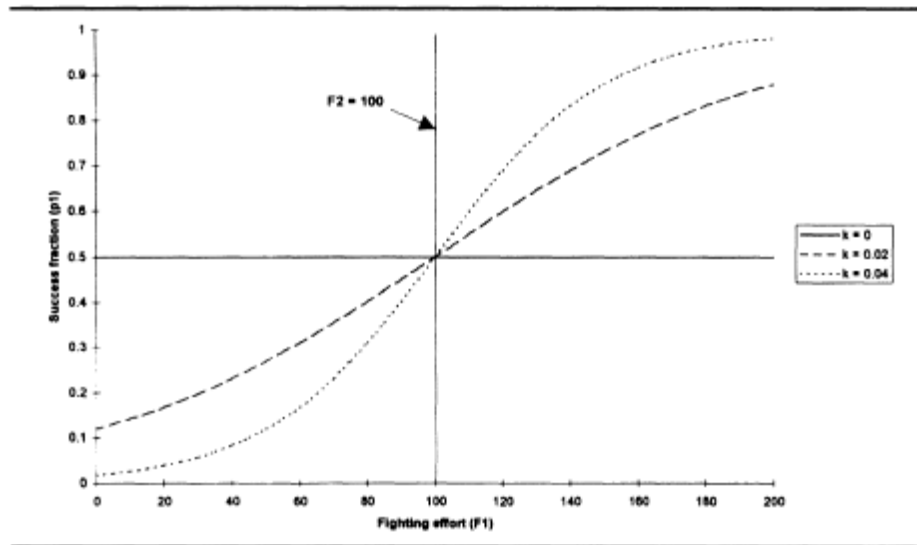


Figure 2: Contest Success Functions: Difference Form

Source: (Hirshleifer, 2000, p. 777)

The probability of combat success can be expressed as the ratio of the military capabilities of the two opponents *A* and *B*:

$$\frac{p_A}{p_B} = \frac{p_A}{1-p_A} = \frac{(b_A K_A)^d}{(b_B K_B)^d} \quad (1)$$

It can also be calculated individually for each party:

$$p_A = \frac{1}{1+(b_B K_B - b_A K_A)^d} \quad (2)$$

The probability of success of party *A* increases with relatively higher fighting effort (personnel, skills) and relatively higher fighting effectiveness - and vice versa. The decisiveness parameter has an ambivalent effect: a high decisiveness parameter favors the militarily stronger party; a lower decisiveness parameter protects the militarily weaker party (cf. Figure 2).

2.1.2. Willingness to fight: The net present value of warfare

The probability of success on the battlefield alone is not enough to allow political leaders to choose between *negotiating* and *fighting*. For this purpose the determination of a comparative advantage metric is necessary. In investment decisions, this is usually the *net present value*, i.e. the profit in relation to the capital employed (Troßmann, 2013, p. 74). For this purpose, these two options must be formulated as decision metrics, valued on the basis of the available data, and compared to each other.

To make this possible, it makes sense – as pointed out by Besley & Persson (2011), to regard the decision for or against warfare as an investment. For the investment decision, the *expected*

net present value of warfare ($eNPVW$) must first be calculated and then compared to the *expected net present value of negotiation* ($eNPVN$). This approach is based on the insight formulated by Powell (2002), according to which the probability of a war occurring depends both on the military capability ratio and the respective valuation of the prize of the contest (i.e., war aim).⁸

The *net present value of warfare* $NPVW$ is equivalent to the value of the total profit accruing from the investment in the future, i.e. the periodic cash inflows and outflows, discounted with the opportunity costs of warfare, which are equal to the risk-adjusted interest rate z (in particular lost income from productive activity, over the period t_1, t_2, \dots, t_n). This results from the difference between *income from warfare* X_A and *expenses for warfare* Y_A , discounted at the adjusted interest rate z_A . The return is equal to the valuation of the war aim W_{AT} , i.e. the return earned over the investment period T after victory. The expenditure is composed of the aggregate cost of warfare K_A , the material and personnel damage S_A arising in the context of warfare (material damage or civilian victims, casualties) as well as a possible penalty payment V_A (costs from international sanctions, e.g. in the case of a violation of international law). With the probability of military victory p_A gained from the contest function we can calculate the *expected net present value of warfare* $eNPVW_A$:

$$eNPVW_A = p_A \sum_{t=1}^T \frac{(W_{AT} - K_A - S_A - V_A)}{(1+z_A)^t} \quad (3)$$

From equation (3) it follows that the net present value increases with increasing probability of military victory p_A . Since K_A is positively correlated with p_A (parties with relatively large (and thus costly) military capabilities have a high chance of winning), this effect should be neutralized to a certain degree. A high subjective valuation of the war objective W_A also has a positive influence on the return on warfare, while the expected war damages can depress the profit. As a rule of thumb, one can state that a substantial military superiority (expressed by a p_A value just below 1) should lead to a clearly positive expected net present value ($eNPVW_A > 1$) as long as the parties' war aim valuations are similar (example: a major power occupies part of the territory of a neighboring small state), while a clear military inferiority should make warfare unprofitable (example: a small state considers occupying parts of the territory of a neighboring major power).

2.2. Negotiation as a strategic substitute

A policy maker will usually consider whether he can achieve his objectives through negotiation, for there should be complementary interests and thus a chance of an agreement between the conflicting parties to their mutual advantage (Hirshleifer, 1987, p. 2). To do this, he must first estimate the *probability of agreement*, and based on this - analogous to the return on warfare - calculate the *return on negotiation* or *net present value of negotiation*, $NPVN$.

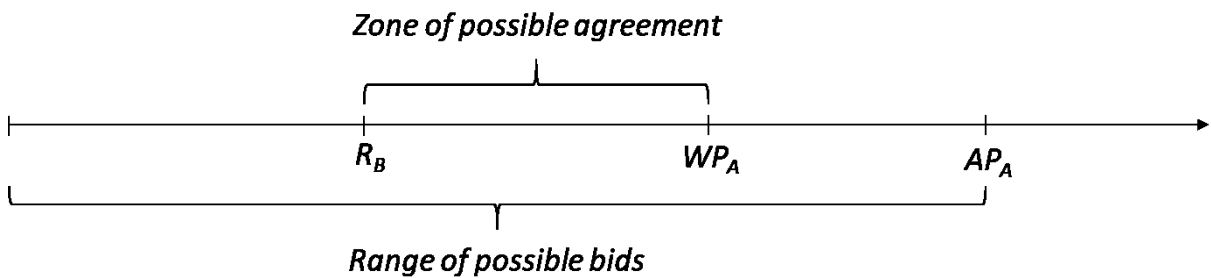
⁸ «The probability of war is likely to be related to the relationship between the distributions of power and benefits, not solely to the distribution of power» (Powell, 2002, p. 13).

2.2.1. Ability to negotiate: the negotiation function

The chances of reaching an agreement at the negotiating table depend on the specific conflict situation. (Powell, 2002) shows that in conflict situations where a surplus arising in the future is divided up and the negotiators have no means of power at their disposal, the chance of agreement is always 50%.⁹ However, this scenario is a special case. More relevant for our question is a scenario in which two states or two civil war parties fight over a territory controlled by one of the parties. In such a scenario, a negotiated solution in the form of an exchange (e.g. money against land, including sovereign rights) is conceivable. The best-known example of this approach is the so-called "Alaska Purchase" of 1867, in which the US paid the Russian tsar 7.2 million dollars for the property rights over Alaska (Barker, 2009).¹⁰

The classical description of such a negotiation (cf. Raiffa, Richardson, & Metcalfe, 2002) encompasses two parties *A* and *B* and their respective preferences with regard to the territory.¹¹ Party *A* wants to buy a territory from party *B*. Party *A* is prepared to bid up to the limit of its *willingness to pay* WP_A , which is equal to the discounted value of the negotiation target W_A (which is identical with the war aim). Party *B* accepts any offer above its reservation price R_B . The negotiation spectrum, i.e. the number of conceivable bids from Party *A*, is limited by its *ability to pay* AP_A , i.e. its budget. The area between R_B and WP_A is called the "zone of possible agreement", because any value within that zone would be accepted by both Party *A* and Party *B* (see Figure 1).

Figure 4: Zone of possible agreement at the negotiating table



Source: own representation

The probability of settlement q (which is necessarily identical for party *A* and party *B*) results from the ratio between the number of possible negotiated solutions within the settlement zone ($WP_A - R_B$) and the number of all conceivable bids determined by party *A*'s ability to pay AP_A :

⁹ "When offers alternate back and forth and the time between offers is small, the bargainers are in almost identical situations and therefore have about the same bargaining power. In these circumstances they divide the surplus or pie in half." (Powell 2002, S. 5)

¹⁰ Further examples are the purchase of Louisiana, Florida, Hawaii and the American Virgin Islands by the USA (Barker, 2009, p. 38).

¹¹ At this point we would like to reiterate the central assumption of a 'power-free space' in this model: none of the parties disposes of any means of coercive power.

$$q_A = q_B = \frac{WP_A - R_B}{AP_A} \quad (4)$$

Equation (4) can also be described as a *negotiation function*. It shows that the probability of agreement q increases with increasing willingness to pay of party A and with decreasing reservation price of party B - and vice versa. It is of course conceivable that there is no zone of possible agreement. In this case q would be 0.¹²

2.2.2. Willingness to negotiate: the net present value of negotiation

The *net present value of negotiation NPVN* describes the relationship between the *revenues from negotiation* and *negotiation expenses*. To remain in the example outlined above, party A determines its return on negotiation (net present value of the territory owned and controlled by party B) and the negotiation effort necessary to agree on the purchase. The return on negotiation corresponds to the subjective value of the negotiation objective, W_A . The subjective value can be interpreted as the income W_A generated over the investment period T (sum of financial and economic interests (taxes, raw materials, etc.) and/or monetary valuation of geopolitical or security interests). The negotiation expenses consist of the *financial negotiation expenses SP* (settlement price in the negotiation) as well as the (usually negligible) *personnel negotiation expenses V_A* (salaries, accommodation, etc.). The settlement price, in turn, results from the ratio of the *negotiating effectiveness v* (for example, more experienced or better-informed negotiators; $0 < v < 1$) of the two parties. If A has a higher negotiating effectiveness than B, SP will be closer to WP_A within the zone of possible agreement - and vice versa. If both have the same negotiating effectiveness, SP will lie equidistantly at the center of the zone of possible agreement. The expected negotiation profitability results mainly from the difference between WP_A and SP . If party A is more effective than party B in negotiating, it can negotiate an advantageous settlement price, which has a positive effect on the return - and vice versa. This means that the return on negotiation increases with relatively high negotiating effectiveness and decreases with relatively low negotiating effectiveness.

The investment decision will be based on the *expected net present value of negotiation eNPVN*. To calculate this, the periodic cash inflows and outflows of the project over the project term are discounted at the imputed interest rate z (in the case of purely financial interests z would correspond to the return on a financial investment with comparable risk; in the case of purely geopolitical interests z would correspond to the average profitability of all alternative geopolitical investments with the same risk). This value is then multiplied by the agreement probability q_A :

$$eNPVN_A = q_A \sum_{t=1}^T \frac{(W_{AT} - SP_A - V_A)}{(1+z_A)^t} \quad (5)$$

¹² For a detailed discussion of further factors influencing the 'zone of possible unification' between two conflict parties, see also Hirshleifer(1998).

The expected net present value of negotiation is meaningful as a decision metric in itself: for all $eNPVN_A \leq 0$, a negotiation is not worth the effort because it would not be profitable - the effort to negotiate would be greater than its yield. For all $eNPVN_A > 0$, on the other hand, negotiation is worth the effort. Barker calculates the NPV of the "Alaska Purchase" and comes to the conclusion that - from a purely financial point of view - the purchase was a bad investment. He therefore assumes that other, non-financial interests, in particular geopolitical considerations, were decisive for the purchase decision (Barker, 2009).

The comparison of the two metrics *expected net present value of negotiation* and *expected net present value of warfare* is decisive for the choice between the two conflict resolution strategies warfare and negotiation. The following inequations apply:

$eNPVN_A < 0; eNPVW_A < 0$ = neither negotiation nor combat make sense; maintaining the status quo ("doing nothing") is the dominant strategy, as neither warfare nor negotiation would lead to an improvement in the situation (probably the most common scenario in reality)

$0 < eNPVN_A < eNPVW_A$ = warfare best option; warfare is a profitable investment for at least one of the parties; that party should sooner or later be tempted to achieve its goals through fighting and not through negotiating.

$0 < eNPVW_A < eNPVN_A$ = negotiation best option; negotiation is a profitable investment for at least one of the parties; that party should sooner or later be tempted to achieve its goals through negotiation and not through warfare.

For third-party diplomacy, the preceding analysis is interesting in the sense that - in the case of incompatible goals between the parties - it makes it possible to weigh the strategic substitutes of *negotiation* and *warfare* (and the status quo option of "doing nothing"). Here it becomes clear that warfare - regardless of legal and moral considerations and despite the associated human suffering - can, under certain circumstances, be the most profitable strategy for achieving political goals. The frequency of the use of military means documented in the statistics of armed conflicts should therefore not come as a surprise.¹³ (Hirshleifer, 1987, p. 6) sums it up nicely:

"Whenever resources can be seized by aggression, invasion attempts can be expected to occur. Invasive and counterinvasive effort absorb a very substantial fraction of society's resources in every possible social structure, whether egalitarian or hierarchical, liberal or totalitarian, centralized or decentralized."

¹³ However, this consideration is only a snapshot. The parameters on which the functions are based change over time. A decision that would have been unprofitable yesterday can be profitable tomorrow - and vice versa: "in the absence of opportunity to do any better at acceptable cost, a contender may well be satisfied to preserve the status quo. But if the balance of forces were to shift in its favor, that same contestant would likely seek to improve its situation" (Hirshleifer, 2000, p. 785).

2.3. The calculus of peace

Just as warfare may be in the interest of the parties, the decision to end the war may be the result of a rational calculation by both parties. Such an endogenous peace¹⁴ can be explained by the learning effects of fighting. The confrontation on the battlefield resembles a discovery procedure. To this end, we must abandon the assumption made in the previous section that the parties have complete information about all the parameters of the model. This is done in accordance with the findings of research which ascribe a central role to the existence of incomplete information in the transition from peace to war (Kydd, 2015, p. 92 ff.)¹⁵. (Hirshleifer, 1987, p. 2) formulates it aptly:

“economics tends to minimize the importance of [informational, *the author*] divergences – partly because they tend to cancel out from a large-numbers point of view, partly because incorrect beliefs are adjusted by experience in the process of establishing an economic equilibrium. But conflict and war are pre-eminently small-numbers, disequilibrium problems. Indeed, conflict may be regarded as in a sense an *educational process*. The school of actual struggle teaches the parties to readjust their perceptions to more realistic levels.”

In a conflict situation, the parties have limited information about each other's preferences and capabilities. This leads to great uncertainty in the valuation of one's own options and thus to the occasional bad decision. As a rule, the information used during the decision-making process is quantitatively and qualitatively inferior to the information available after the decision has been taken. In this respect, every investment project benefits from a *degree of completeness of information* that increases with the duration of the project, a 'learning effect', where learning is equivalent to a Bayesian updating of beliefs after each period of warfare. In his groundbreaking work 'The Causes of War', the Australian historian Geoffrey Blainey (1988) put forward the hypothesis that wars usually begin when two states have *inconsistent beliefs* about their relative strength, (Kydd, 2015, p. 104 ff.) and that wars usually end when states agree on their relative strength, i.e. when beliefs are consistent (Chadefaux, 2011)¹⁶. At this point, the probabilities of success of both warring parties reflect the actual military balance of power, and the fighting comes to an end. Hence, peace can be considered a *stationary military equilibrium*.

Figure 5 summarizes this logic. *PP* can be considered as the border line between war and peace, the *peace frontier*. *PP* contains all possible stationary military equilibria. In the area above the *PP*, conflict parties have inconsistent beliefs about their respective military strength

¹⁴ In political economics, political decisions are increasingly interpreted as the result of endogenous political processes (Aghion, Alesina, & Trebbi, 2004). Endogenous peace is the result of a rational decision-making process of the parties, not a dictate of a third party.

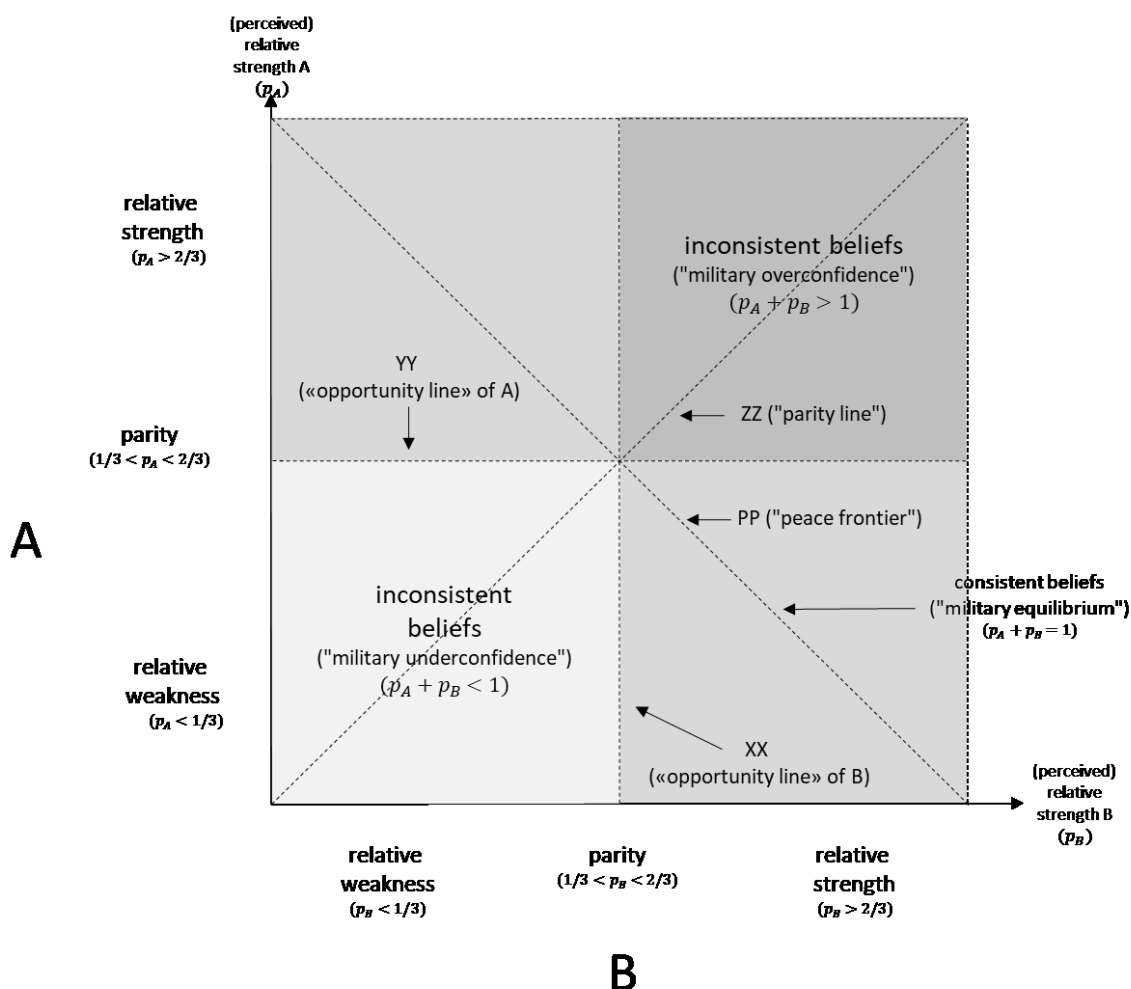
¹⁵ In addition to incomplete information, the problem of *incredible commitment* of a relatively stronger party plays a central role in the declaration of war and peace (Powell, 2006). This is of only minor importance for peace mediation (in contrast to peacekeeping) and will therefore be omitted below.

¹⁶ "Wars usually end when the fighting nations agree on their relative strength, and wars usually begin when fighting nations disagree on their relative strength" (Blainey, 1988, p. 122). This is also supported by practical experience in peace mediation: the so-called "battle order" (the spatial division of the troops and their tactical battle formation), which provides information about the relative military strength of the parties, is probably the best-kept secret of a conflict party, and it is rarely voluntarily revealed in negotiations (Brickhill, 2018).

(one or both perceive themselves as stronger than they actually are, a case of either one-sided or two-sided *military overconfidence*) and fight out their true balance of power. In the area below *PP*, the situation is converse: one or both parties perceive themselves to be weaker than they actually are: a situation of *military underconfidence*. In such a scenario, war is actively avoided through appeasement. The straight line *ZZ* depicts those military configurations that exhibit parity, i.e. in which the perceived military capabilities of the parties are identical (probability of combat success $p_A = p_B$). *ZZ* can be considered the *parity line*. With complete information, $p_A = p_B = 1/2$ (point *P*).

The horizontal and vertical lines represent the opportunity costs of warfare. They can be considered the *opportunity lines*, *YY* resp. *XX*. Assuming identical valuations of the prize (the war respectively negotiation aim), they represent the parties' probability of success in negotiations. For reasons of simplification, a value of $q_A = q_B = 1/2$ is assumed here, i.e. both parties have the same negotiation effectiveness.¹⁷

Figure 5: War and peace in (dis)equilibrium



¹⁷ This assumption is realistic, especially in the case of interstate wars. In civil wars it is not unrealistic to assume an asymmetry in the probability of successful negotiations, e.g. 70% (government) or 30% (rebels). This would significantly change the strategic configuration and could result in a much smaller scope for negotiation, since rebels would prefer fighting.

The fundamental problem of a low degree of completeness of information in decisions about war and peace is the resulting risk of a misjudgment of one's own strength in relation to the opponent. For if both parties overestimate their relative strength due to lack of or false information about the opponent's capabilities, war becomes possible: in this case both sides would be convinced that an armed confrontation is worthwhile because they would win ($p_A + p_B > 1$)¹⁸. Such a scenario of inconsistent beliefs, in which both parties estimate a positive probability of contest success is logically impossible with complete information.

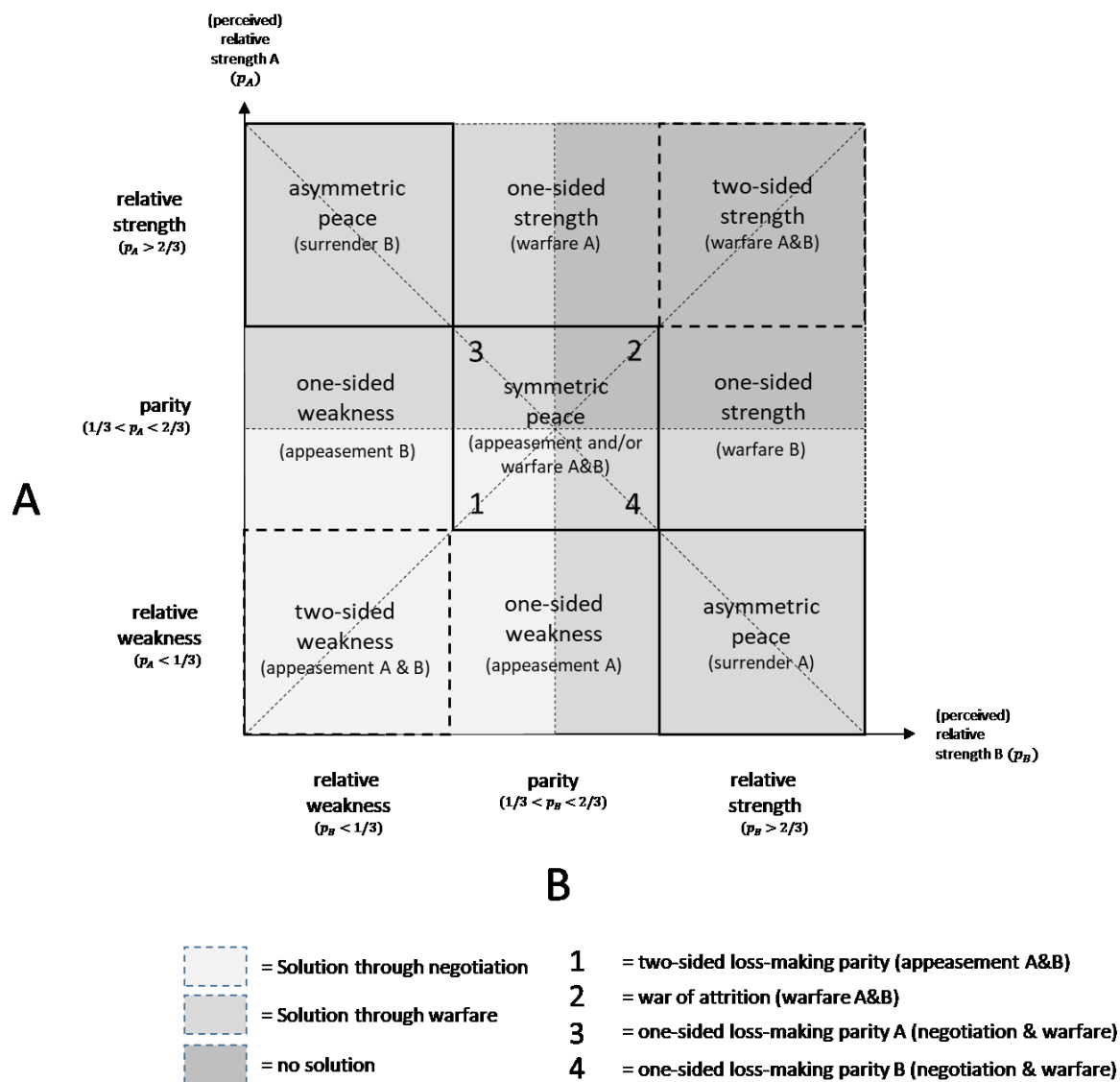
Figure 6 locates the possible cases of inconsistent beliefs at baseline period t_0 in a nine-field matrix. Fields are demarcated according to the combination of three generic scenarios: perceived strength ($p_A > 2/3$), perceived parity ($1/3 < p_A < 2/3$), and perceived weakness ($p_A < 1/3$). In addition to the scenario "two-sided strength", in which both sides consider themselves to be relatively stronger (p_A and $p_B > 2/3$; $p_A + p_B > 1$; right upper field), there is a scenario of "two-sided weakness" (p_A and $p_B < 1/3$; $p_A + p_B < 1$; left lower field), in which both sides consider themselves to be relatively weaker (p_A or $p_B < 1/3$), also due to incomplete information. In the "two-sided strength"-scenario, both parties are fully convinced of their own military strength. In the "two-sided weakness"-scenario, on the other hand, none of the parties is convinced of its own success. The inconsistent belief here is the result of a deliberate bluffing of the opponent on both sides, since both sides have an incentive to appear as the relatively stronger party ($p_A > 2/3$ or $p_B > 2/3$) to prevent the enemy from attacking. Both parties therefore have an incentive to take discrete and independent measures to avoid war. The situation is more complicated in the four cases of low asymmetry, "one-sided strength" or "one-sided weakness". With the former the stronger of the parties (in its own perception) seeks war, while the other avoids open confrontation without capitulating (example: counterinsurgency). In the latter case, the weaker party (in its own perception) seeks negotiation, while the other side seeks to maintain the status quo.

Once war has broken out, the incompleteness of the information loses its significance due to the learning effect of fighting described above. Step by step, the parties learn about the opponent's abilities and come to a more realistic assessment of their own relative strength. Private information becomes public information, inconsistent beliefs become consistent beliefs. In accordance with Blainey (1988), the party that turns out to be relatively weaker in the course of the war will sooner or later recognize that the battle cannot be won ($p_{At+1} > p_{Bt+1}$) or ($p_{At+1} < p_{Bt+1}$).

¹⁸ "The prospect of coercing gains out of the other side if it is weak makes it worthwhile to run the risk of an unwanted war on even terms." (Kydd, 2015, p. 110).

Depending on the value of the final parameter (cf. contest function) a victory of the stronger side will be faster (example: naval battle) or slower (example: guerrilla war). High-intensity warfare in period t can be followed by low-intensity warfare in period $t+1$, and a peace treaty by capitulation of the weaker party in period $t+2$ ¹⁹. In these top left and bottom right fields, the balance of power is so uneven that a clear military solution emerges: surrender of the weaker party.²⁰

Figure 6: Symmetric and asymmetric peace



Source: Own representation

If none of the parties succeeds decisively, a war that was highly intense at the beginning will over time turn into a low-intensity war of attrition (downward movement along the parity line

¹⁹ “Battles typically proceed to a definitive outcome – victory or defeat. Wars on the whole tend to be less conclusive, often ending in a compromise settlement” (Hirshleifer, 1987, p. 5).

²⁰ In game theory, the tactic in which one party forces the other to surrender through a massive military overweight (inducing the associated political concessions), is referred to as 'preemption' (Hörner & Sahuguet, 2011).

ZZ), a situation of military parity ($p_A = p_B$; *symmetric peace* (field in the middle). In such a stalemate, both parties assess each other as equally strong. As they become less and less convinced that they can win the war, and as the costs of warfare accumulate, they lose the incentive to fight. Experimental studies confirm this proposition: peaceful settlements are much more likely in situations of military parity than in situations of military disparity (Kimbrough et al. 2014).

Even if warfare may seem profitable at first, in the course of war, a negotiated settlement can become a relatively more profitable option. This is explained by the difference between the perceived and actual military strength of the counterparts. War is a process of discovery that makes the parties aware of their military limitations, i.e. reveals their true strengths. The real strength of a party p'_A or p'_B may turn out to be smaller or greater than the strength perceived at the beginning. The following approximate inequations apply.

$p'_A < 1/3$; $p'_B < 1/3$ = appeasement is the dominant strategy, since warfare would lead to a worsening of the situation.

$1/3 < p'_A < 2/3$; $1/3 < p'_B < 2/3$ = Maintaining the status quo ("doing nothing") is the dominant strategy, as combat would neither improve nor worsen the situation (probably most common in reality).

$p'_A > 2/3$; $p'_B > 2/3$ = Warfare is the dominant strategy, since it would lead to an improvement of the situation.

In reality, situations of military parity, in which the original war aim can no longer be achieved through warfare, repeatedly occur (war of attrition, stalemate: $1/3 < rp_A < 2/3$; $1/3 < rp_B < 2/3$). The new strategy of the parties should be to end the war, usually through a ceasefire, by agreeing to a stationary military equilibrium (point on the peace frontier PP). As a rule of thumb, the initiative for a peaceful settlement should be expected to come from the party that turned out to be militarily weaker in the course of the war.

3. Endogenous peace: mediation

There are two manifestations of endogenous peace: *asymmetric* and *symmetric endogenous peace*. In the former, the stronger party confirmed during the war that it was stronger, and the weaker party learned that it was weaker:

$$p_A + p_B = 1; p_A < \frac{1}{3}; p_B > \frac{2}{3} \quad \text{or} \quad p_A + p_B = 1; p_A > \frac{2}{3}; p_B < \frac{1}{3} \quad (6)$$

Asymmetric endogenous peace is also known as "Siegfrieden", or victorious peace. Both parties are aware of the uneven military capability ratio and draw the appropriate conclusion: submission of the weaker party by the stronger party.

In the latter case (symmetric endogenous peace), the parties learned through warfare that they are similarly strong (military parity). In this type of endogenous peace, the transition from war to peace is more complicated, since no clear winner or loser emerges from combat. There are basically three different situations: war of attrition, one-sided loss-making parity and two-sided

loss-making parity (see quadrants numbered 1-4 in Figure 6). A further type of endogenous peace results from a situation where one or both parties perceive themselves to be militarily weaker than the adversary (military weakness). This can happen during the course of a war of attrition (one-sided weakness) or before the outbreak of a war (two-sided weakness).

3.1. Military parity

3.1.1. War of attrition

In reality, a whole series of armed conflicts which do not produce a winner even after periods of more or less intense fighting can be observed. The most recent example is the civil war in Afghanistan. Such *wars of attrition* can be explained by the fact that at the outset ($t=0$), both parties had determined for themselves a comparatively high probability of combat success (two-sided strength), alternative solutions (negotiation, status quo) being less attractive. In the course of the war, however, it turned out that a quick military victory or a surrender of the weaker side was not achievable. In period $t+i$, the parties find themselves in a situation of parity. Neither side is in a position to defeat the other side ($p_{A(t+i)} = p_{B(t+i)}$).

The war of attrition is a well-known model in game theory ('war of attrition game', cf. Hörner & Sahuguet (2011), Foster (2018)).²¹ Basic problem of the war of attrition game is that both sides have a high valuation of the war aim (in the sense of a high expected net present value). Both parties are thus prepared to incur high costs of warfare over several periods in order to realize the war aim.²² Each party sends a *costly signal* about its willingness to fight (i.e. its net present value) to the opponent, in the form of periodic investments in combat operations, in the hope that the opponent is not willing and/or able to achieve military parity and subsequently surrenders.²³ If both sides increase their military deployment proportionally beyond the originally planned level, the respective probabilities of success do not change. Instead, there is a *delay* in bringing about the eventual outcome, and an associated excessive consumption of resources, which has a detrimental effect in terms of return on warfare.²⁴ In a war of attrition, the parties gradually approach their own *break-even threshold*²⁵ from above. As long as both parties are willing and able to equalize militarily, the war of attrition continues. Military parity leads to a stalemate, but not automatically to peace talks. The stalemate therefore corresponds to the status quo ante: neither party gains anything compared to the situation before the war.

²¹ Both papers only partially model the war of attrition. A comprehensive model that convincingly illustrates the logic of wars of attrition is not yet available. See also Powell (2012).

²² Experimental studies confirm this: the more important the aim (in terms of a high NPV), the higher the combat commitment of the parties (Dechenaux et al., 2015; Delgado, Schotter, Ozbay, & Phelps, 2008).

²³ Commanders seem to know about this risk. They try to discourage the enemy by a massive frontloading of military effort at the beginning of the war (Kimbrough et al., 2017, p. 4 ff.).

²⁴ From the point of view of welfare economics, the futile effort of the losing party must also be added. This means that as a result, welfare is reduced by the aggregate effort of both parties ('rent dissipation').

²⁵ As explained in the interim conclusion, the profitability threshold is either equivalent to the negotiated solution (above a certain level of warfare costs, negotiation is more profitable than warfare), or the entry into the loss zone (negative net present value of warfare).

At least in theory, an end to a war of attrition is likely when one of the parties reaches a limit, either in terms of its *willingness to fight* or in terms of its *ability to fight*. A party should lose its willingness to fight if it falls below its own break-even threshold, turning warfare into a bad investment. Interestingly, experimental studies on wars of attrition come to a counterintuitive conclusion: the higher the amount of military effort invested, the less willing a party is to surrender. This phenomenon is known as the *sunk-cost fallacy*. It describes a situation with an irrationally high - i.e. unprofitable - use of resources in armed conflicts. It is also referred to as *overbidding* and has been confirmed in experimental studies for various types of contests. This observation implies that conflict parties are often prepared to continue fighting even after they have crossed their own break-even threshold, earning negative returns. This is due to their particular sensitivity to sunk costs and occurs despite the associated losses.²⁶ At this point, the NPV calculation, which was decisive for the decision to go to war, loses importance. Ultimately, it seems, the decisive factor for the *willingness to fight* is whether parties exhibit sensitivity to sunk costs.

With regard to the prevalence of overbidding, the end of a war of attrition is less a question of willingness to fight than ability to fight. A war of attrition only ends when at least one of the parties is suffering from attrition, i.e. it cannot make the periodic investment in combat, even if it wanted to. This is either due to frictions (temporary lack of liquidity, personnel, equipment, etc.) or to a binding budget constraint.

3.1.2. One-sided loss-making parity

The two grey-colored quadrants in **Error! Reference source not found.** signal a slight, but militarily indecisive superiority of one party. In these two situations, one party already has an incentive to negotiate ($1/3 < p_A$ or $p_B < 1/2$), while the other party still has an incentive to resolve the conflict militarily ($1/2 < p_A$ or $p_B < 2/3$). In such a situation, the parallel opening of negotiations ('bargaining while fighting' (Powell, 2004) can lead to agreement. The party proposing peace negotiations to the opponent merely signals skepticism with regard to its own probability of success in the fight ($1/3 < p_A < 2/3$). In contrast to the case of a strategic switch from warfare to negotiation described above, it does not rule out the possibility that it will be able to at least avoid defeat. Thus the opponent cannot conclude from the negotiation proposal that it will win the military contest. It therefore has no incentive to reject the proposal. The outcome of the negotiations (in terms of obtaining political concessions from the adversary) thus depends on the situation on the battlefield. Should the party with the advantage on the battlefield not be able to assert itself militarily, it should at least be able to assert parts of its political demands by negotiation. The strategy of 'negotiating while fighting' was recently used in the civil wars in Colombia (government and FARC respectively ELN) and Afghanistan (USA

²⁶ Rolandsen (2011, p. 554) gives a vivid example from the Sudanese civil war, which demonstrates the temptation of the parties to continue the struggle despite ongoing talks and low chances of military victory: "Throughout the process, both sides seemed constantly to consider reverting to arms, despite stalemate on the battlefield and a growing realization that victory was unfeasible in the near future."

and Taliban). According to the model, it should be expected to occur with a likelihood of 5.4% (2 out of a total of 36 quadrants, each quadrant representing a likelihood of 2.7%), see grey quadrants in Figure 7.

3.1.3. Two-sided loss-making parity

In order for both parties to decide for themselves to start peace negotiations, simultaneous attrition must occur. In the mediation literature, this situation is referred to as 'mutually hurting stalemate' (Zartman, 2001). In **Error! Reference source not found.**, this situation corresponds to a downward movement along the parity line ZZ from the upper right quadrant (dark grey) to the point of perfect parity P' in the lower left quadrant (light grey).

At all points of the parity line within the light grey quadrant 1, both parties consider themselves to be slightly weaker independently of each other and therefore have the same incentive to engage in peace talks. The figure shows that the probability of the natural occurrence of simultaneous attrition is low, as only points within the light grey quadrant are considered. According to the model, a situation of two-sided loss-making parity is extremely rare. It should be expected to occur with a likelihood of 2.7% (1/36).

3.2. Military weakness

3.2.1. One-sided weakness

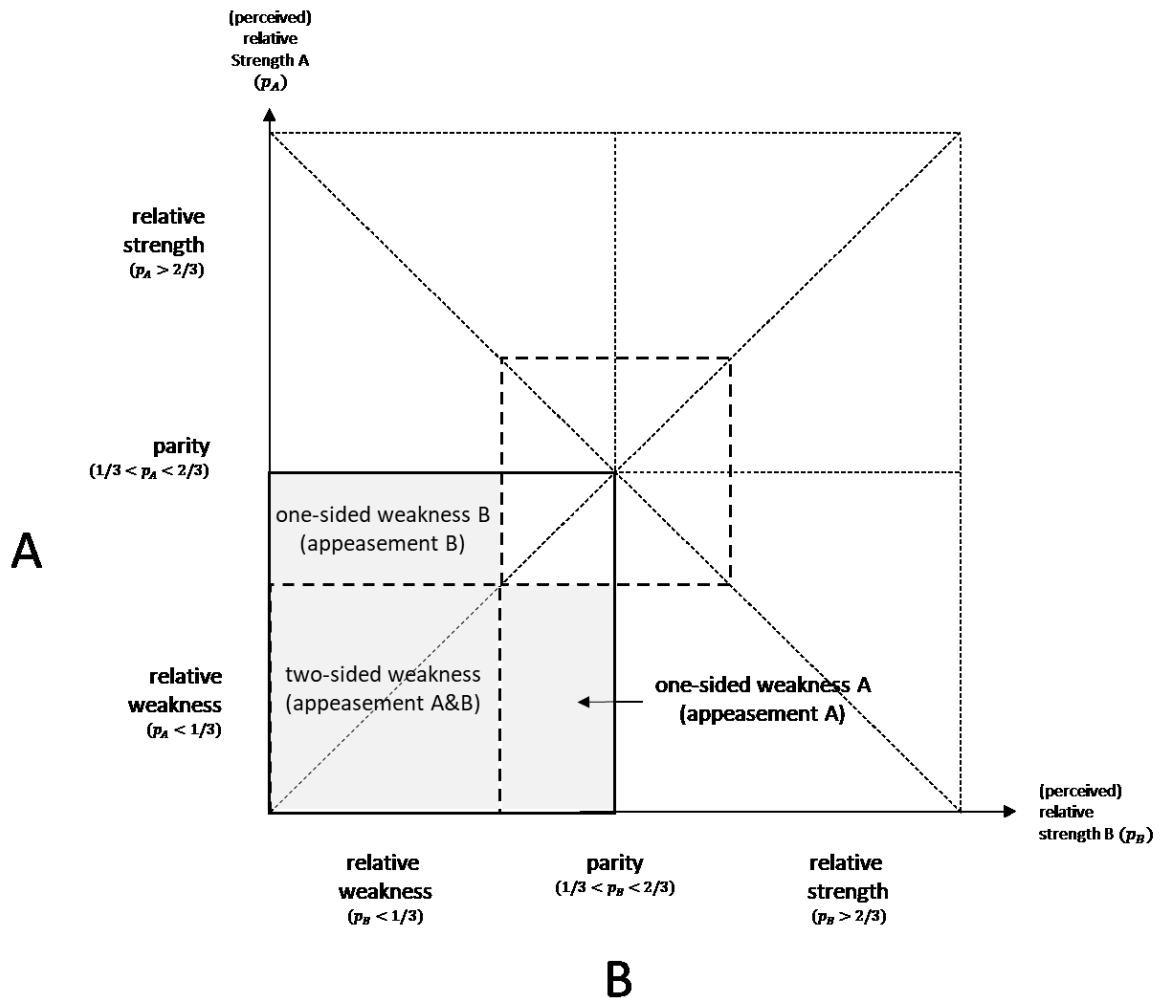
More likely than the cases described above are configurations in which one of the parties perceives itself to be relatively weaker, while the opponent considers itself to be at parity, but below the opportunity lines XX resp. YY (*one-sided weakness*; light grey rectangles in Figure 7). In this configuration, both parties have an incentive to negotiate. The impulse to negotiate should come from the relatively weaker party, which first started to suffer in the war of attrition, and begins to discreetly look for a way out of the war in order to avoid a looming surrender. It is interested in a settlement that will secure its continued existence and will try either to negotiate on its own or to rely on a mediator. In a comparison of all conceivable military configurations, scenarios of one-sided weakness occur with a probability of 11.1% (4/36), i.e. four times more frequently than situations of two-sided loss-making parity.

This coincides with anecdotal evidence from the United Nations: "we find that [...] explicit invitations are rare (or, if they are forthcoming, they might come from one conflict side but not the other" (Day & Fong, 2017, p. 2)²⁷ Further anecdotes confirm the relevance of one-sided weakness for peaceful settlement: in the Middle East, the PLO was in serious financial distress

²⁷ Even in the event that both parties agree on a mediation, this dilemma could lead to the choice of a comparatively ineffective mediator: both parties have no incentive to choose a mediator with a known pronounced propensity for peace, since they would signal to the opponent that they prefer a non-military solution. Kim (2017) argues that such an endogenous selection process often results in the involvement of the least suitable, i.e. least peace-biased, mediator.

(one-sided weakness) after the first Gulf War - a prerequisite for the Oslo negotiations.²⁸ In the Iran-Iraq war of the 1980s, the Iranian leader Khomeini only agreed to a ceasefire when his country was on the verge of sovereign bankruptcy (Cordesman & Wagner, 1994). Peace negotiations in Northern Ireland, Guatemala and Uganda are further cases in point: peace only became possible due to financial problems of the insurgents (Provisional IRA, URNG respectively LRA) (Gehrmann, 2019).

Figure 7: One-sided and two-sided weakness



Source: Own representation

Peaceful settlements resulting from one-sided weakness are situated somewhere between asymmetric and symmetric peace. In fact, they can be considered negotiated surrender of the weaker party (often in the form of a ceasefire), a mild form of *asymmetric peace*. The rule of thumb here is that the party with the greater *military potential* (military capabilities plus financial

²⁸ “The cancellation during the Gulf War of the mandatory deduction on the salaries of Palestinian workers that rulers of the Gulf states had imposed on the PLO’s behalf badly hurt the PLO’s income just at a time when the costs of supporting the *intifada* were severely draining its resources. This financial loss was one of the main factors that impelled the PLO to sign the Oslo Accords, which probably spelled the end to dreams of Palestinian independence” (Naylor, 2002, p. 79).

resources that can be turned into capabilities) ultimately retains the upper hand (Powell, 2017, p. 221 ff.).

3.2.2. Two-sided weakness

Equally likely as situations of one-sided weakness are situations of two-sided weakness (11.1% (4/36); see lower-left field in Figure 7). A situation of two-sided weakness usually occurs before the outbreak of war, when both sides weigh their options and conclude, independently of each other, that they would almost certainly lose a military contest. Hence, they have an incentive to appease the opponent and enter into negotiations right away. Actually, situations of two-sided weakness are based on at least one erroneous self-evaluation, since it is logically impossible to have two parties that perceive themselves to be relatively weaker.

3.3. Mediation

3.3.1. The hold-up problem

In order for peace negotiations to take place, the warring parties must overcome one of the fundamental challenges of social interaction. During a war, none of the parties has an incentive to signal its openness to peace negotiations. The mere signal could be perceived by the opponent as weakness and could encourage him to double down militarily, putting a peaceful resolution out of reach. In an escalating confrontation, both conflict parties - even if they consider themselves militarily inferior ($p_A < 1/3$) and seek a negotiated solution (as with one-sided weakness) - are painstakingly careful to demonstrate military strength (*bluffing*). An anecdote from the First World War illustrates the problem: in 1916, US President Woodrow Wilson made an offer to the Chancellor of the German Empire, Bethmann-Hollweg, to serve as a neutral mediator between the European warring parties. Bethmann-Hollweg's answer was straightforward: "If we accept America's offer of mediation now, our enemies would interpret it as a sign of weakness and the German people would not understand" (Doerries, 1978, p. 38). Another relevant example is the prelude to the US invasion of Iraq: "in 2003, the major reason that Saddam Hussein refused to agree to US demands to allow inspectors to search for WMDs (even though he didn't have any) was that he was afraid it would make Iraq look weak against Iran - a country he feared more than the US" (Gartner, 2014, p. 289). In game theory, this obstacle is referred to as the *hold-up problem*²⁹ (Dixit, 2009, p. 10). The hold-up problem can be solved by involving a third party, a mediator. A mediator can help overcome the disincentive to be the first to signal willingness to engage in peace negotiations. In the jargon of game theory, a mediator can transform a game with *sequential* moves into a game with *simultaneous*

²⁹ The second mover can exploit the first mover without incurring costs, because the latter has already done his part of the business. Another term for this problem is "one-sided prisoner dilemma" (Dixit, 2009, p. 10).

moves. This has profound effects on the strategic calculus of the warring parties. In particular, the disadvantage of the party making the first move in the sequential game (*first mover*) disappears. If a conflict party in difficulty ($p_A < 1/3$) confidentially establishes contact with a mediator, it does not compromise its own position in the dispute, since the opposing party receives no information about this contact. In the subsequent contact between the potential mediator and the second party, the fact that contact has already taken place with the other side can be concealed by the mediator ($1/3 < p_B < 2/3$). Thus, the second party receives no new information about its own relative strength and, accordingly, has no incentive to refuse mediation. This corresponds to a game with simultaneous moves.

3.3.2. Myerson mediation

A second question is whether mediators add value in finding and agreeing on a peaceful settlement. There are different opinions in the literature about the added value of a third party in peace negotiations. Fey and Ramsay (2010) are pessimistic about the added value that a third party can achieve. They argue that conflict parties do not reveal more sensitive information to a third party than to the opposing side, since they cannot be sure that the third party keeps confidentiality. They propose that a third party can only add value if it has independently acquired confidential information about the conflict. Nathan (2014) supports this view from a practitioner's perspective. In the economics literature, a consensual view on mediation is emerging. It is referred to as "Myerson mediation", in honor of the inventor of the *revelation principle*, Roger Myerson, which lies at the heart of this allocation mechanism.³⁰ The revelation principle prescribes that both parties truthfully reveal their types and preferences to the mediator (not to each other), and the mediator then proposes an optimal peace agreement, which is acceptable to both parties. In the words of Meirowitz et al. (2019), "Myerson mediation keeps the expected settlement payoffs of self-reported weak players as high as possible and the payoffs of self-reported strong players as low as possible." The players accept the settlement since they are never informed by the mediator about their true type.³¹ In Myerson mediation, the third party has the role of a consultant who, in confidential talks with both parties to the conflict (*shuttle diplomacy*), makes his own assessment of the parties' strength and in the end submits a proposal that is more advantageous for both sides than a return to the

³⁰ Roger Myerson is a professor of economics at the University of Chicago. He is most famous for a number of seminal papers in game theory, which laid the foundations for a new subdiscipline that today is known as "mechanism design". For these achievements, Myerson was awarded the Nobel Prize in economics in 2007.

³¹ In situations of one-sided weakness, mediation might involve deception of the factually stronger party by the third party, since the latter does not reveal the factual weakness of the opponent. Such deception is explicitly permissible, as it can prevent further military escalation: "The mediator can circumvent the constraint that her recommendations be self-enforcing, by using recommendation strategies that do not always reveal to a disputant that the opponent is weak. This mechanism relies on the mediator's capability to gather information from the disputants privately, under a confidentiality agreement." (Horner et al., 2015, p. 1495)

battlefield (a point on the peace frontier, ideally P' , i.e. perfect parity).³² The mediator can choose whether he relies exclusively on information provided by the parties, or whether he invites outside experts to provide additional information. The former type of mediation takes place in a closed information circuit. It is similar to the interest-based, facilitative type of mediation (*facilitative mediation*) The latter type takes place in an open information circuit, and gives some room for persuasion by the mediator or invited experts (*persuasive mediation*). In order to ensure that the parties to the conflict report truthfully to the third party, the latter must, however, be able to credibly threaten to immediately resign from its mandate if untruthful communication by the parties is uncovered (with the consequence of a high probability of a return to war - an undesirable outcome for the parties).³³ According to this reading, the effectiveness of peace mediation depends on the credibility of the threat of the mediator to quit the process in the event of uncooperative behavior by the parties (Brown & Ayres, 1994; Horner et al., 2015).

3.3.3. The market for mediation mandates

The United Nations defines mediation as follows: "Mediation is a process in which a third party, with its consent, assists two or more parties to prevent, manage or resolve a conflict by helping them to develop mutually acceptable agreements" (Nations, 2012). The principle of voluntariness is a constitutive feature of peace mediation: both parties must be willing to negotiate.³⁴ In this sense, international mediation works according to the same logic as domestic mediation. Supply of and demand for this service are determined by market forces. Mediators compete for mandates offered jointly by the conflict parties. Since the choice of the mediator is made in concurrence, both parties need to agree to one and the same mediator. This creates a coordination problem between the three actors. Neither conflict party has an incentive to choose a mediator which could act against its own interests, either by a) favoring the other side or by b) acting self-interestedly. A third party that is suspected of being biased in one of these ways will face difficulties in obtaining mediation mandates. In order to judge the risks associated with potential mediators, conflict parties can screen candidates according to observable characteristics such as political alignment, position in the international political hierarchy or reputation built in previous mediations. On the other side of the market, potential

³² Myerson mediation also presents a theoretical solution to another pressing issue of international relations. It can neutralize the strategic incentive of a weaker player to initiate secret weapons programs while facing a stronger adversary: "the optimal mediation mechanism simultaneously discourages weak players from falsely reporting that they are strong and minimizes the equilibrium incentive that they militarize and become strong in the first place" (Meiowitz et al., 2019, p. 400). This is highly relevant for conflicts involving nuclear armament such as Iran and North Korea.

³³ "Given that a low type must be discouraged from exaggerating strength, there needs to be positive probability of war following a high report. The most potent channel through which the low type's incentive to exaggerate strength can be kept in check is quitting and instigating a conflict escalation when there are two self-proclaimed high types" (Horner et al., 2015, p. 1483).

³⁴ In Anglo-Saxon usage, mediation is also referred to as 'facilitative mediation' or 'low-powered mediation'.

mediators can signal their innocuousness to the parties, e.g. by building a reputation for professional conduct. The most difficult coordination issue is to get agreement between the parties on an equally acceptable mediator. The underlying issue is that each party to the conflict faces different incentives. In a situation of one-sided weakness, the factually stronger party will usually favor a weak mediator that is incapable of manipulating the outcome in an unwelcome manner, for example by threatening to bring the conflict to the attention of the UN Security Council. The factually weaker party will usually favor a strong mediator that can ensure that its positions are respected. Due to these diverging preferences, the number of mediators in the overlap is usually small.³⁵ Accordingly, mediators which are positioned on both ends of the spectrum should have difficulty obtaining mandates. On the contrary, mediators who are positioned in the middle of the spectrum (hence the term mediation) should have the highest likelihood to obtain mandates. (Meirowitz et al., 2019) confirm that Myerson mediation is primarily conducted by third parties who do not have access to costly resources such as privileged information, military capability or financial capability to enforce peaceful settlements.

The international market for mediation mandates is, due to the nature of the good exchanged, very peculiar. Third parties treat mediation mandates as positional goods. Positional goods are a special type of good which is, by its very nature, limited in supply (Hirsch, 2005). Typical (and very abstract) examples for positional goods are status and power.³⁶ The number of mediation mandates is, due to the nature of the international system, limited.³⁷ Therefore, obtaining a mandate to mediate in an international conflict contributes to a mediator's international status, similar to a prize or an award. Prizes and awards are usually allocated to the party with the highest bid. In the case of international mediation, this results in the peculiar fact that countries are willing to pay for the service they are offering (mediation). As can be imagined, the bidding process for mediation mandates is extremely competitive. It can be described as something akin to a beauty contest.

3.3.4. Mediation in situations of military parity

The hatched triangle QRS in Figure 9 illustrates the logic of mediation in a situation of two-sided loss-making parity: Party A believes it is situated at point S, Party B believes itself at point Q. Both parties therefore have an incentive to seek a negotiated solution. In reality,

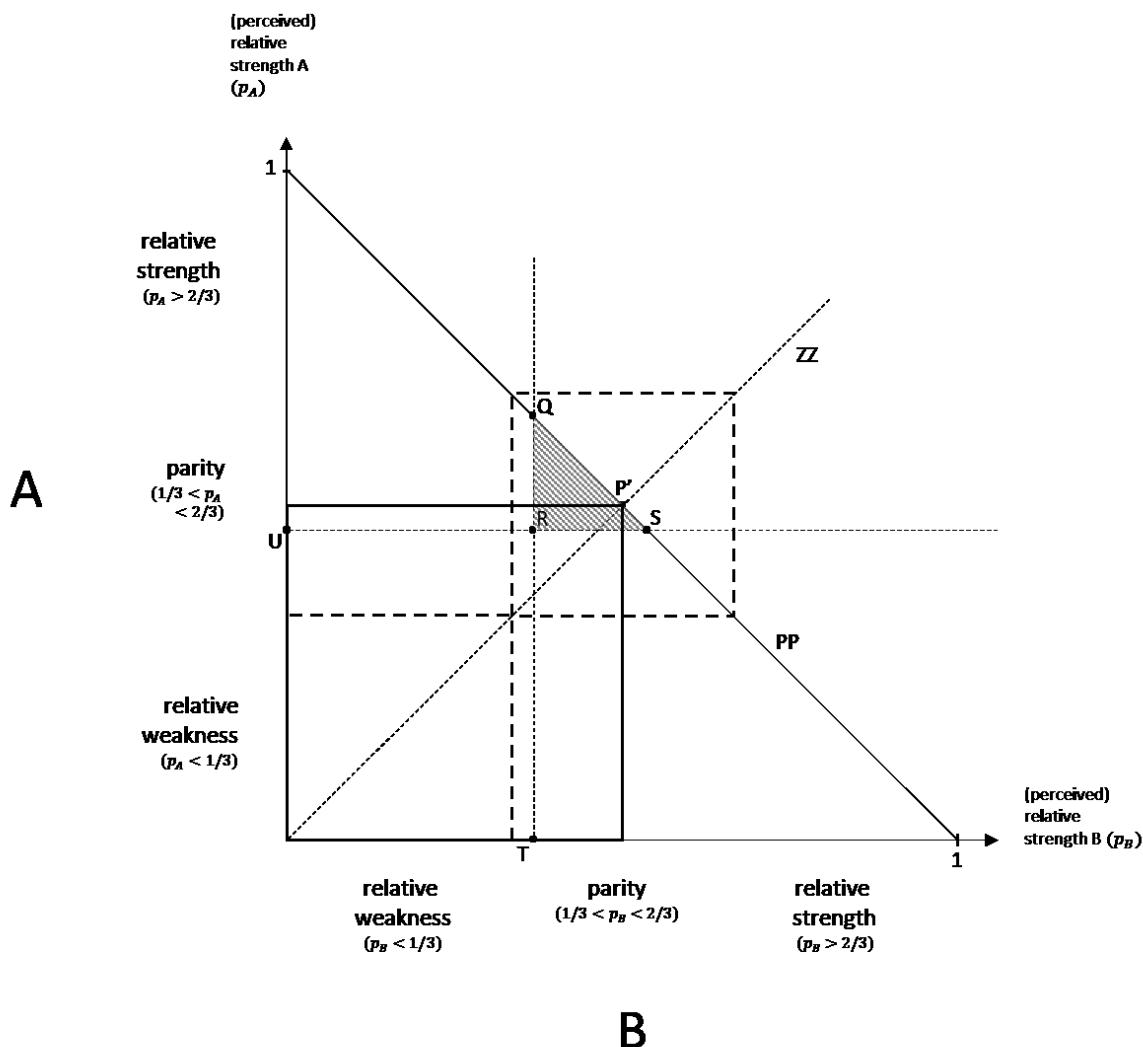
³⁵ In many conflicts, mediator selection is complicated by the fact that both parties have incomplete information about the other side's type (strong or weak), which enables strategic behavior. For example, in order to cover up its self-assessed weakness, a weak party might opt for a weak mediator (instead of a strong one), thus signaling strength to the other side; see (Kim, 2017).

³⁶ In the words of (Pagano, 2007, p. 29), "the egalitarian consumption of [positional, *the author*] goods is seriously limited by their intrinsic positional nature. If everybody can be somebody, nobody can be somebody: it is impossible for all the members of a group of individuals to be equally powerful and prestigious without spoiling the very meaning of these goods that do necessarily imply divisive consumptions with two opposite signs."

³⁷ The hypothetical number of mandates is limited by the number of existing countries. Hence, mandates cannot simply be produced according to demand as any "normal" private or public good.

however, the parties are at point R and could easily improve their position (to a point within the shaded triangle, ideally on the PP peace frontier, on the QS line). The capability gap between the parties in this example is so small that even with complete information none of the parties would have an incentive to seek a military confrontation.

Figure 8: Mediation with two-sided loss-making parity



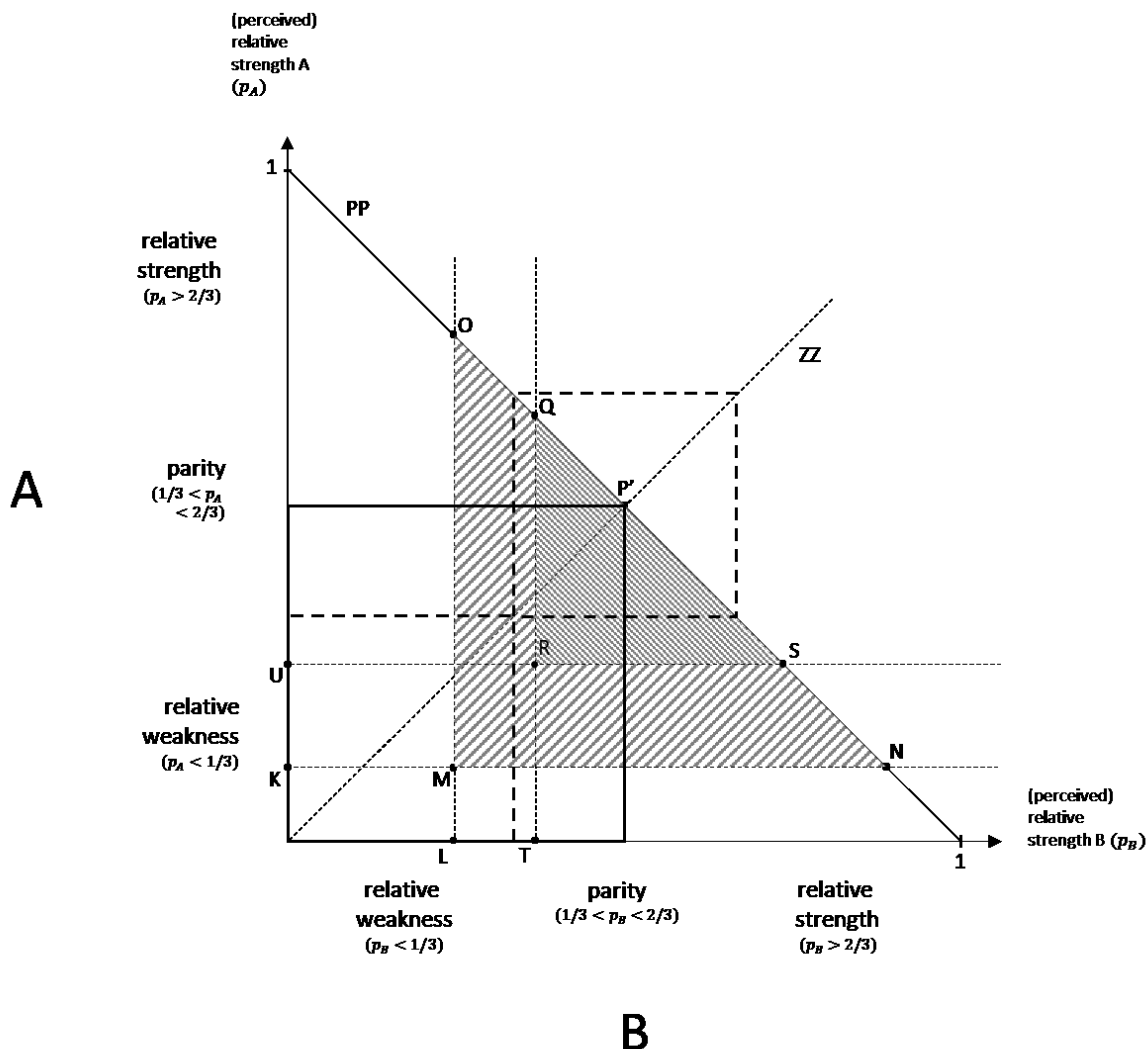
Source: Own depiction

3.3.5. Mediation in situations of military weakness

In a situation of two-sided weakness, mediation takes place before the outbreak of war. The aim of mediation is to *maintain peace* or to *avoid war*. The hatched triangle MNO in Figure 9 illustrates this: Party A believes to be at point N, party B believes to be at point O. In reality, however, the parties are at point M and could easily improve their position (to a point within the shaded triangle, ideally on the peace border PP, on the route ON). Therefore, both parties discreetly seek peaceful ways out of a possible military confrontation (*appeasement*). Interestingly, the balance of power between the parties in this example is comparatively

asymmetric. At point *M*, B is approximately twice as strong as A (ratio of distances *KM* to *LM*). In other words, if information was complete, B would have an incentive to solve the conflict militarily and attack A.

Figure 9: Mediation with one-sided and two-sided weakness



Source: Own depiction

There is anecdotal evidence for mediation in situations of two-sided weakness. Probably the best-known case is the so-called "Good Offices Mission Bahrain" of the United Nations from 1971, when the former UN diplomat Ralph Bunche, personally commissioned by then UN Secretary General U Thant at the request of the conflict parties, mediated the independence of the Kingdom of Bahrain from the United Kingdom (which had controlled Bahrain as a protectorate since 1867) (Jensen, 1985). Bunche negotiated an agreement on Bahrain's independence between the former colonial powers of the United Kingdom and Iran. Both parties had initially sought a verbal confrontation with the Sheikh of Bahrain and with each other, but then switched to the UN Secretary General. Remarkable about this example is the fact that the UN Security Council was not consulted. Even then, this was based on the still

valid insight that early involvement of the Security Council would make peace talks more difficult, if not impossible.³⁸ UN negotiator Erik Jensen, who was involved in the Bahrain mediation, summarizes the success factors for this type of mediation as follows: "Successful peacemaking of this kind requires many elements. First and foremost, sufficient concurrence of interest to make it acceptable [...], but also discretion, restraint, a degree of goodwill, superpower acquiescence, and even a measure of statesmanship, courage and vision." (Jensen, 1985, p. 347). Against the background of such successes, the current UN Secretary-General Guterres explicitly focuses on mediation as part of his "surge in diplomacy for peace".

4. Exogenous Peace (persuasion and imposition)

4.1. The international hierarchy

Third-party diplomacy comes in two flavors. They can be classified in line with Williamson's classic distinction between the two alternative modes of economic organization: market and hierarchy (Williamson, 1973). When applied to the transition from war to peace, the former results in *endogenous peace* (peace as a result of the individual rationality of the parties, see above), the latter results in *exogenous peace* (peace as the result of a targeted intervention of a third party in the calculus of (at least) one of the conflict parties).

There are two third-party diplomacy strategies that lead to exogenous peace: *persuasion* and *imposition*.³⁹ Persuasion involves the generation of new information (by the third party), and its subsequent provision to the parties, with the goal of changing their cost-benefit calculus (possibly including financial inducements to the parties). Imposition has the same objective, but involves costly signaling of resolve of the use of force (such as sanctions) and/or the actual use of force. Both persuasion and imposition do not require a formal mandate by the conflict parties. Therefore, there is no marketplace in which third parties compete for mandates. On the contrary, persuasion and imposition work according to the logic of hierarchy. One of the advantages of hierarchy is, according to Williamson, the fact that it permits "fiat to be employed to settle instrumental disputes that might otherwise occasion costly haggling" (Williamson, 1973, p. 324). In other words, hierarchies serve as an instrument to reduce transaction costs. More specifically, hierarchies protect investments in specific assets (sunk costs) from exploitation (such as expropriation) by entities other than the investor (Lake, 2009, p. 267). In the international system, which is often (and erroneously) treated as anarchic, a diverse array of hierarchies exists. The most extreme form of international hierarchy is imperialism, where one country has full authority over another (its colony). Lesser degrees of authority of one country over another exist as well, examples being Allied control over German and Japanese

³⁸ «Early involvement of the Council inevitably entailed a degree of publicity incompatible with the exercise of good offices" (Jensen, 1985, p. 346).

³⁹ An effect with the aim of achieving a military victory for one of the parties (so-called 'bandwagoning') or preventing the defeat of one of the parties ('balancing') is also conceivable (Powell (2017)). In the former case, the third party would become a party to the conflict due to its partisanship. This corresponds to a scenario of asymmetric peace and is not considered here.

foreign policy after World War II (Lake, 2009, p. 275). Persuasion and imposition are based on an informal hierarchy between third party and conflict parties, where the third party has some authority over the conflict parties. When conflicts are resolved in this organizing mode, there is no demand from the conflict parties, only supply by a third party. Hence, persuasion and imposition can be interpreted as imposed mediation.

The difficulty in hierarchical third-party diplomacy is that at least one of the parties has no incentive to negotiate. In contrast to mediation, the third party cannot count on both parties to the conflict passing on confidential information about their military capabilities in order to facilitate a negotiated solution. Quite the opposite: if a party has no interest in a negotiated solution, it will do everything it can to sabotage it by withholding information. On the other hand, since it is clear from the outset that there is no common will to involve a third party, the third party does not have to overcome the hold-up problem. Hence, in persuasion and imposition, third parties either self-appoint, or are appointed unanimously by an international or regional body such as the UN Security Council, OSCE, AU or IGAD, regardless of the willingness of the parties to the conflict. In this sense, persuasion and imposition work according to an enforcement logic, with decisions being taken inside the international hierarchy. Governments and international bodies can decide to seize a matter by appointing a Special Envoy for a conflict and giving him a mandate to conduct one or more strategies of third-party diplomacy. Recent examples include UN-mandated “mediations” in Syria, Libya and Yemen (which should actually be considered impositions).⁴⁰

Hierarchical third-party strategies such as persuasion and imposition can only be successfully carried out by third parties who have a superior status in the international hierarchy. This is due to the fact that, in case of persuasion, third parties with inferior status will have difficulty in gaining access to conflict parties that have been unwilling to admit a third party in the first place. In the case of imposition, only states with an undisputed superiority in military capabilities will be able to credibly signal their resolve or use force. Therefore, UN-mandated mediations that are not backed up by a mandate that allows for the use of force are doomed to fail. UN mediation efforts in Syria come to mind. Hence, hierarchical third-party strategies are a reserve of the most powerful states within the international hierarchy, as (primarily) measured in terms of military capabilities. Marquis and Schneider provide evidence of this when they point out that, between 1950 and 1990, two thirds of third-party diplomacy of the P4 (USA, Great Britain, France and Soviet Union) was of a hierarchical nature, i.e. taking place without an official request of the conflict parties (Marquis & Schneider, 1996).⁴¹ Conversely, a large number of aspiring third parties are effectively excluded from hierarchical third-party diplomacy.

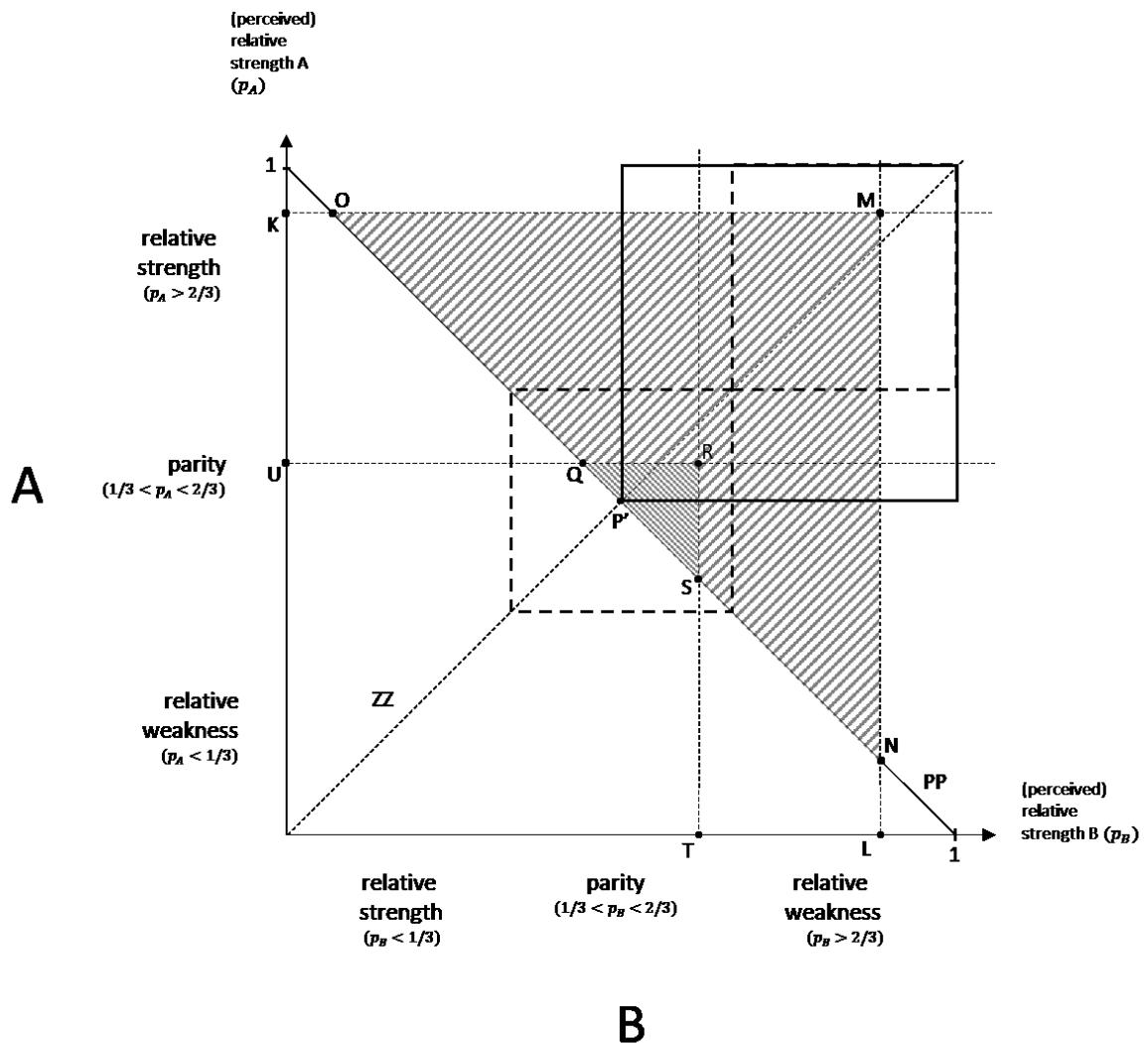
⁴⁰ Note that the term “mediation” is misleading, since in all of the mentioned cases, at least one of the conflict parties is not willing to cooperate. It would be more appropriate to refer to these cases as persuasion or imposition.

⁴¹ There is reason to doubt this finding, however. The P4 are not known for taking equidistant third-party positions between conflict parties. The finding might in fact be related to a systematic coding error, mistaking third parties for first or second parties, i.e. allies of the conflict parties.

4.2. Persuasion

As Kamenica and Gentzkow (2011) point out in their seminal paper, persuasion relies on the generation of new information (and its subsequent transmission) by a persuader (sender) to one or more targeted parties (receivers). The objective of a strategy of persuasion is to induce the receiver to review, on the basis of the received information, his individual cost-benefit calculus, and to adapt his behavior.

Figure 10: Persuasion and imposition



Source: Own representation

The US government has shown that persuasion can work in international conflict resolution. During the India-Pakistan dispute over Kashmir in 1990, the CIA was tasked to gather information on the military capabilities of both conflict parties, and to conduct a war gaming exercise on this basis (showing that Pakistan would lose a war in almost all of the scenarios). Robert Gates, CIA officer who later became Defense Secretary, was tasked to transmit the results of the exercise to the Pakistani government. Having overcome initial difficulties in gaining access to Pakistani decision-makers (who were preparing for war), he conveyed the message that a war would result in a Pakistani defeat, and that the US would remain firmly

impartial (thus removing the option of US balancing in favor of Pakistan). After the transmission of this new information, Pakistan eventually demobilized and backed down. Gates' persuasion strategy worked, mainly due to the CIA's superior intelligence and war gaming capabilities that were able to generate new information (Chari, Cheema, & Cohen, 2003).

As Li (2017) shows, the impact of persuasion can be enhanced by the additional provision of financial resources. According to her model, information and finance are strategic substitutes: better information decreases the need for additional financial persuasion of the parties. This insight aligns well with a case mentioned by Munton and Fredj (2013, p. 672), who confirm that intelligence can have a pacifying role in peace processes: during the peak years of the Egypt-Israeli dispute, the US government provided intelligence relating to military activities along their common border to both parties. This served to prevent misunderstandings and accidental attacks. In addition, the US started providing military assistance to both sides of the conflict, thus making sure that none of the parties could gain the upper hand.

The hatched triangle MNO in

Figure 10 illustrates the idea: Party A thinks it is at point O, party B thinks it is at point N. In reality, however, the parties are at point M and could easily improve their position (to a point within the shaded triangle, ideally on the peace frontier PF, on the ON line). A third party may contribute to a downgrading of its relative strength and thus to a de-escalation by disclosing confidential information about the opponent.

4.3. Imposition

Third parties can self-appoint as peacemakers and force the conflict parties to negotiate. In the Anglo-Saxon linguistic area, imposition is optionally referred to as 'directive mediation', 'manipulative mediation' or 'coercive mediation'. Imposition involves the threat or imposition of coercive measures by the third party. The aim is to force one or both parties to the conflict to act against their own interests. As a rule, coercion targets the stronger conflict party in order to reduce its return on warfare. Thus, the third party can create the conditions for peace negotiations (Wennmann 2009).⁴²

Imposition is limited to forcing the parties to the negotiating table. The outcome of the negotiations, on the other hand, lies in the hands of the parties. The prerequisite for such uninvited interference by the third party is the ability to enforce coercive measures. This requires significant superiority in the form of military and/or financial means of power on the part of the third party, which makes it impossible for the victim to defend himself effectively. These measures include targeted sanctions (particularly effective for selfish decision-makers, see Jackson & Morelli (2007)), targeted use of force, or credible threats of the use of force.

A third party capable of imposition can in principle guide the conflict parties from all points above the peace frontier to all points on the peace frontier. The hatched triangle QRS in

⁴² «Third-party pressure on the financial capacity of an armed group has [...] the potential to steer parties towards a more favourable, symmetric environment that favors the resolution of disputes through negotiation» (Wennmann, 2009, p. 276)

Figure 10 illustrates this: Party A believes to be at point *U*, party B believes to be at point *T*. In reality, however, the parties are at point *R* and could easily improve their position (to a point within the hatched triangle, ideally on the *PP* peace frontier, on the *QS* line). A third party may, by credibly threatening or imposing sanctions, and/or by using military force, induce the parties to update their beliefs about their respective expected return on warfare, thus creating the conditions for peace negotiations. If the third party does not have its own means of power, as in the case of the United Nations or the African Union, it must cooperate with capable fourth parties.

Imposition has already been used successfully on several occasions. Probably the best-known case of imposition is the intervention of the USA in the 1995 Bosnian War. Several attempts at peace mediation were initially unsuccessful (Leigh-Phippard, 1998).⁴³ Only when US Special Envoy Richard Holbrooke was able to force the Serbian government and its Bosnian Serb clients, despite their military superiority, to conclude a peace agreement with their Bosnian and Bosnian-Croat opponents in Dayton was it possible to end the violence. NATO had to bomb Bosnian Serb targets for three weeks. After all, the military material damage to the Bosnian Serbs was so great that a continuation of the war had become militarily hopeless and unprofitable (Holbrooke, 1999). During the civil war in Sudan, a combination of a regionally mandated mediator and a self-appointed fourth party (here the 'Troika', consisting of the USA, Great Britain and Norway) was able to ensure that several peace agreements were negotiated. The troika had a considerable leverage effect and was instrumentalized by the Kenyan peace broker Lazaro Sumbeiywo to persuade the parties to the conflict to make decisive concessions (Rolandsen, 2011)⁴⁴. A similar recipe led to a peace agreement in the Darfur conflict (Duursma, 2017). In the Northern Irish conflict, the relatively stronger pro-British Loyalists were forced by their protective power (United Kingdom) to enter peace negotiations. At the beginning of the talks, they symbolically protested against the negotiations by walking out.⁴⁵ These examples show that imposition by third parties can make peace agreements possible. However, there are also cases in which this does not work. In particular, the United Nations Security Council regularly calls on conflict parties to engage in serious negotiations via its resolutions, without any consequences. The best example of a failed imposition by the Security Council is the Syrian Civil War (Akpinar, 2016).

⁴³ «Although both Karadzic and Mladic had met in the past with Western mediators, including former President Jimmy Carter, those contacts had led nowhere.» (Holbrooke, 1999, p. 339).

⁴⁴ “[an agreement, *the author*] was finally negotiated after Sumbeiywo locked two members of each delegation in a room and told them this was their last chance. Thus immured, they nonetheless had extensive telephone contact with their respective leaders, which resulted in the unexpected and groundbreaking Machakos Protocol” (Rolandsen, 2011, p. 556).

⁴⁵ “At first, Mitchell’s chairmanship was not even accepted by the unionist parties. Mitchell recalled the first day of the talks. “When I entered the room and walked toward my seat, my attention was drawn to the DUP [Democratic Unionist Party] section by a noisy commotion. There, Dr. Paisley was standing and yelling in a loud voice, ‘No. No. No. No.’ He repeated it over and over again until I was in my seat. Before I could say or do anything, Paisley launched a blistering attack on the governments for ‘imposing’ me as chairman. He then led his delegates in a walkout” (Mitchell 1999, S. 49–50, zitiert in (Curran et al., 2004).

5. Conclusion

This paper gives a comprehensive introduction to third-party diplomacy.

First, it defines third-party diplomacy as involvement of equidistant (impartial) and outcome-indifferent (neutral) third parties in the resolution of armed conflict, and distinguishes it from both mediation and third-party intervention.

Second, it shows that warfare - regardless of legal and moral concerns and despite the human suffering it entails - can be an individually profitable strategy for achieving political or economic, community or individual goals. The frequency of the use of military means documented in the relevant statistics should therefore not come as a surprise. Any form of political solution to armed conflicts must be pursued against this background.

Third, the paper develops a simple contest theory model which shows that - given a party's willingness to fight - the ability to fight, measured by the perceived probability of combat success, determines the likelihood of an outbreak of war. War is a result of incomplete information: it arises from inconsistent (usually too optimistic) beliefs of the parties about their relative military strength (i.e. probability of contest success).

Fourth, peace is the result of a learning effect of the parties in the course of war and can be interpreted as a stationary equilibrium of military capabilities (endogenous peace). Peace can be asymmetric and symmetric. The former is the result of military superiority and leads to the surrender of the weaker party ("Siegfrieden"). The latter is the result of a war of attrition between two parties at parity and is settled by negotiation, with or without the support of a third party, depending on the military configuration ("Verständigungsfrieden").

Fifth, a peaceful transition from war to peace is only feasible in a quarter of all conceivable military configurations (endogenous peace). In these situations, mediation is a suitable strategy for third parties to enable negotiated settlements. The mediator can initiate a peace process by skillfully transmitting information and enable a peace agreement by making settlement recommendations. To be successful, a mediator must commit to confidentiality and be able to credibly threaten to quit the process.

Sixth, the scenario of a "mutually hurting stalemate", postulated in the mediation literature as the main metric for conflict "ripeness", corresponds to only 2.7% of all conceivable military configurations. Mediation is more likely in situations of one-sided and two-sided weakness (each approx. 11%).

Seventh, in the remaining three quarters of all conceivable military configurations, mediation is not feasible, since at least one of the parties to the conflict has no interest in a peaceful settlement. In such cases, third parties may self-appoint as peacemakers (exogenous peace).

Eighth, through the targeted generation and provision of confidential information, a third party can influence the calculus of the parties to a conflict and create conditions for a peaceful settlement (persuasion). To be successful, a persuader must have significant intelligence capabilities and a superior rank in the international hierarchy.

Ninth, through credible threats of or imposition of sanctions, or through credible threats of or use of military force, third parties can influence the warring parties' calculus in such a way that they become willing to negotiate (imposition). To be successful, an imposer must have superior military capabilities.

Tenth and last, market-based and hierarchy-based third-party diplomacy are mutually exclusive. Third parties with military capabilities face a commitment problem that prevents them from successfully competing in the market for mediation mandates. Third parties without military capabilities are not in a position to self-appoint as peacemakers. Hence, third parties that want to increase their effectiveness should a) assess their strategic options, b) take a strategic decision, and c) start investing in the corresponding strategic resources. Alternatively, they can establish partnerships with complementary fourth parties.

Bibliography

- Aghion, P., Alesina, A., & Trebbi, F. (2004). Endogenous Political Institutions*. *The Quarterly Journal of Economics*, 119(2), 565-611.
- Akpınar, P. (2016). The limits of mediation in the Arab Spring: the case of Syria. *Third World Quarterly*, 37(12), 2288-2303.
- Althoff, G. (2011). *Frieden stiften: Vermittlung und Konfliktlösung vom Mittelalter bis heute*: WBG (Wissenschaftliche Buchgesellschaft).
- Barker, D. (2009). Was the Alaska Purchase a Good Deal? *University of Iowa. August, 10*, 1-46.
- Beardsley, K. C., Quinn, D. M., Biswas, B., & Wilkenfeld, J. (2006). Mediation style and crisis outcomes. *Journal of Conflict Resolution*, 50(1), 58-86. doi:10.1177/0022002705282862
- Bercovitch, J. (1996). *Resolving international conflicts: The theory and practice of mediation*: Lynne Rienner Publishers.
- Besley, T., & Persson, T. (2011). The Logic of Political Violence. *The Quarterly Journal of Economics*, 126(3), 1411-1445.
- Blainey, G. (1988). *Causes of War, 3rd Ed*: Free Press.
- Brandt, W. (1971). *Friedenspolitik in Europa*: S. Fischer.
- Brickhill, J. (2018). *Mediating Security Arrangements in Peace Processes: Critical Perspectives from the Field*. ETH Zurich.
- Brown, J. G., & Ayres, I. (1994). ECONOMIC RATIONALES FOR MEDIATION. *Virginia Law Review*, 80(2), 323-402. doi:10.2307/1073526
- Bundesregierung, D. (2018). *Krisen verhindern, Konflikte bewältigen, Frieden fördern - Leitlinien der Bundesregierung*. Berlin Retrieved from https://www.bundesregierung.de/Content/Infomaterial/AA/Krisen_verhindern_121349_8.html
- Carment, D., & Rowlands, D. (1998). Three's company: evaluating third-party intervention in intrastate conflict. *Journal of Conflict Resolution*, 42(5), 572-599.
- Chadefaux, T. (2011). Bargaining over power: when do shifts in power lead to war? *International Theory*, 3(2), 228-253. doi:10.1017/s175297191100008x
- Chari, P. R., Cheema, P. I., & Cohen, S. P. (2003). *Perception, Politics and Security in South Asia: The Compound Crisis of 1990*: Routledge.
- Clayton, G., & Baumann, J. (2017). *Mediation in bewaffneten Konflikten*. Retrieved from Zürich:
- Clemens, M. (2017). Chancen und Grenzen interessenorientierter, fazilitativer Mediation im Kontext internationaler politischer Konflikte. In K. Kriegel-Schmidt (Ed.), *Mediation als Wissenschaftszweig : Im Spannungsfeld von Fachexpertise und Interdisziplinarität* (pp. 201-211). Wiesbaden: Springer Fachmedien Wiesbaden.
- Cordesman, A. H., & Wagner, A. R. (1994). *The Iran-Iraq War* (Vol. II).
- Curran, D., Sebenius, J. K., & Watkins, M. (2004). Two paths to peace: Contrasting George Mitchell in Northern Ireland with Richard Holbrooke in Bosnia-Herzegovina. *Negotiation Journal*, 20(4), 513-537. doi:10.1111/j.1571-9979.2004.00041.x
- Day, A., & Fong, A. P. (2017). Diplomacy and Good Offices in the Prevention of Conflict. *A Thematic Paper for the United Nations-World Bank Study on Conflict Prevention*.
- Dechenaux, E., Kovenock, D., & Sheremeta, R. M. (2015). A survey of experimental research on contests, all-pay auctions and tournaments. *Experimental Economics*, 18(4), 609-669. doi:10.1007/s10683-014-9421-0
- Dixit, A. (2009). Governance Institutions and Economic Activity. *American Economic Review*, 99(1), 5-24. doi:10.1257/aer.99.1.5
- Doerries, R. R. (1978). Imperial Berlin and Washington: New Light on Germany's Foreign Policy and America's Entry into World War I. *Central European History*, 11(1), 23-49. doi:10.1017/S0008938900008906
- Duchhardt, H. (1979). *Studien zur Friedensvermittlung in der frühen Neuzeit*: Mainzer Philosophische Fakultätsges.
- Duursma, A. (2017). When to Get Out of the Trench? Using Smart Pressure to Resolve Civil Wars. *Civil Wars*, 19(1), 46-64. doi:10.1080/13698249.2017.1342440
- Fearon, J. D. (2007). *Fighting rather than Bargaining*. Paper presented at the Annual Meetings of the American Political Science Association.

- Fey, M., & Ramsay, K. W. (2010). WHEN IS SHUTTLE DIPLOMACY WORTH THE COMMUTE? Information Sharing through Mediation. *World Politics*, 62(4), 529-+. doi:10.1017/s0043887110000183
- Foster, J. (2018). Wars of Attrition with Endogenously Determined Budget Constraints. *B E Journal of Theoretical Economics*, 18(2). doi:10.1515/bejte-2016-0197
- Gartner, S. S. (2014). Third-party mediation of interstate conflicts: actors, strategies, selection, and bias. *Arbitration Law Review*, 6(1), 269-294.
- Gehrmann, B. (2019). *Financing Political Violence - A Review of the Literature*. Unpublished manuscript.
- Goltsman, M., Horner, J., Pavlov, G., & Squintani, F. (2009). Mediation, arbitration and negotiation. *Journal of Economic Theory*, 144(4), 1397-1420. doi:10.1016/j.jet.2008.08.010
- Greig, J. M., & Diehl, P. F. (2012). *International Mediation*: Wiley.
- Hirsch, F. (2005). *Social limits to growth*. Routledge.
- Hirshleifer, J. (1987). Conflict and Settlement. In S. N. Durlauf (Ed.), *The new Palgrave Dictionary of Economics* (2nd ed.). Basingstoke, Hampshire: Palgrave MacMillan.
- Hirshleifer, J. (1989). Conflict and rent-seeking success functions: Ratio vs. difference models of relative success. *Public Choice*, 63(2), 101-112. doi:10.1007/bf00153394
- Hirshleifer, J. (1995). Theorizing about conflict. In *Handbook of Defense Economics* (Vol. 1, pp. 165-189): Elsevier.
- Hirshleifer, J. (1998). The bioeconomic causes of war. *Managerial and Decision Economics*, 19(7-8), 457-466. doi:10.1002/(SICI)1099-1468(199811/12)19:7/8<457::AID-MDE897>3.0.CO;2-H
- Hirshleifer, J. (2000). The macrotechnology of conflict. *Journal of Conflict Resolution*, 44(6), 773-792. doi:10.1177/0022002700044006004
- Hirshleifer, J. (2001). *The dark side of the force: Economic foundations of conflict theory*: Cambridge University Press.
- Holbrooke, R. (1999). The road to Sarajevo. *Herding cats: Multiparty mediation in a complex World*, 325-344.
- Horner, J., Morelli, M., & Squintani, F. (2015). Mediation and Peace. *Review of Economic Studies*, 82(4), 1483-1501. doi:10.1093/restud/rdv022
- Hörner, J., & Sahuguet, N. (2011). A war of attrition with endogenous effort levels. *Economic Theory*, 47(1), 1-27. doi:10.1007/s00199-010-0524-3
- Jackson, M. O., & Morelli, M. (2007). Political bias and war. *American Economic Review*, 97(4), 1353-1373. doi:10.1257/aer.97.4.1353
- Jensen, E. (1985). The Secretary-General's Use of Good Offices and the Question of Bahrain. *Millennium*, 14(3), 335-348.
- Jia, H., Skaperdas, S., & Vaidya, S. (2013). Contest functions: Theoretical foundations and issues in estimation. *International Journal of Industrial Organization*, 31(3), 211-222.
- Kamenica, E., & Gentzkow, M. (2011). Bayesian persuasion. *American Economic Review*, 101(6), 2590-2615.
- Kim, J. Y. (2017). Interim third-party selection in bargaining. *Games and Economic Behavior*, 102, 645-665. doi:10.1016/j.geb.2017.02.013
- Kimbrough, E. O., Sheremeta, R. M., & Shields, T. W. (2014). When parity promotes peace: Resolving conflict between asymmetric agents. *Journal of Economic Behavior & Organization*, 99, 96-108.
- Kimbrough, E. O., Laughren, K., & Sheremeta, R. (2017). War and conflict in economics: Theories, applications, and recent trends. *Journal of Economic Behavior & Organization*.
- Kirchhoff, L. (2008). *Constructive interventions: paradigms, process and practice of international mediation* (Vol. 3): Kluwer Law International.
- Kydd, A. H. (2015). *International relations theory*: Cambridge University Press.
- Lake, D. A. (2009). *Hierarchy in international relations*. Cornell University Press.
- Leigh-Phippard, H. (1998). The Contact Group on (and in) Bosnia: an exercise in conflict mediation? *International Journal*, 53(2), 306-324.
- Li, C. (2017). A model of Bayesian persuasion with transfers. *Economics Letters*, 161, 93-95.
- Marquis, L., & Schneider, G. (1996). Wer kommt als Vermittler zum Zuge? Überschätzte und unterschätzte Anforderungsfaktoren für Mediationstätigkeiten. *Swiss Political Science Review*, 2(3), 1-15.

- Meirowitz, A., Morelli, M., Ramsay, K. W., & Squintani, F. (2019). Dispute resolution institutions and strategic militarization. *Journal of Political Economy*, 127(1), 378-418.
- Moore, C. W. (2014). *The mediation process: Practical strategies for resolving conflict*: John Wiley & Sons.
- Munton, D., & Fredj, K. (2013). Sharing secrets: A game theoretic analysis of international intelligence cooperation. *International Journal of Intelligence and CounterIntelligence*, 26(4), 666-692.
- Nathan, L. (2014). The Intelligence Requirement of International Mediation. *Intelligence and National Security*, 29(2), 208-226. doi:10.1080/02684527.2013.799368
- Nations, U. (2012). UN Guidance for Effective Mediation. In: United Nations New York, NY.
- Naylor, R. T. (2002). *Wages of Crime: Black Markets, Illegal Finance, and the Underworld Economy*: Cornell University Press.
- Paffenholz, T. (1995). Vermittlung–Kriegsbeendigung und Konfliktregelung durch friedliche Einmischung. *Volker Matthies (Hg.)*, 39-56.
- Powell, R. (2002). Bargaining theory and international conflict. *Annual Review of Political Science*, 5(1), 1-30.
- Powell, R. (2004). Bargaining and learning while fighting. *American Journal of Political Science*, 48(2), 344-361.
- Powell, R. (2006). War as a commitment problem. *International Organization*, 60(1), 169-203.
- Powell, R. (2012). Persistent Fighting and Shifting Power. *American Journal of Political Science*, 56(3), 620-637. doi:10.1111/j.1540-5907.2011.00575.x
- Powell, R. (2017). Taking Sides in Wars of Attrition. *American Political Science Review*, 111(2), 219-236. doi:10.1017/s0003055416000782
- Raiffa, H., Richardson, J., & Metcalfe, D. (2002). *Negotiation analysis: The science and art of collaborative decision making*: Harvard University Press.
- Ramsbotham, O., Miall, H., & Woodhouse, T. (2011). *Contemporary conflict resolution*: Polity.
- Ray, D., & Esteban, J. (2017). Conflict and development. *Annual Review of Economics*, 9, 263-293.
- Regan, P. M. (1996). Conditions of successful third-party intervention in intrastate conflicts. *Journal of Conflict Resolution*, 40(2), 336-359.
- Reppen, K. (1998). Friedensvermittlung als Element europäischer Politik vom Mittelalter bis zur Gegenwart. Ein Vortrag. *Konrad Reppen: Dreißigjähriger Krieg und Westfälischer Friede. Studien und Quellen. Paderborn: Schöningh*, 800-816.
- Rohner, D. (2018). *Success Factors for Peace Treaties: A Review of Theory and Evidence*. Cahiers de recherches économiques, (18.08). Lausanne.
- Rolandsen, Ø. H. (2011). A quick fix? A retrospective analysis of the Sudan Comprehensive Peace Agreement. *Review of African Political Economy*, 38(130), 551-564.
- Ropers, N. (1995). Friedliche Einmischung: Strukturen, Prozesse und Strategien zur konstruktiven Bearbeitung ethno-politischer Konflikte.
- Schwanitz, W. (2003). Adenauer's Botschafter in Kairo: Die geheime Friedensvermittlung Ägypten-Israel 1953. *Historisch-Politische Mitteilungen, Archiv für ChristlichDemokratische Politik, Konrad-Adenauer-Stiftung*, 10, 151-172.
- Troßmann, E. (2013). *Investition als Führungsentscheidung: Projektrechnungen für Controller*: Vahlen.
- Walter, B. F. (1997). The critical barrier to civil war settlement. *International Organization*, 51(3), 335-&. doi:10.1162/002081897550384
- Widmer, P. (2014). Diplomatie. *Ein Handbuch*.
- Williamson, O. E. (1973). Markets and hierarchies: some elementary considerations. *American Economic Review*, 63(2), 316-325.
- Zartman, I. W. (1995). *Elusive peace: negotiating an end to civil wars*: Brookings Institution Press.
- Zartman, I. W. (2001). The timing of peace initiatives: Hurting stalemates and ripe moments. *Global Review of Ethnopolitics*, 1(1), 8-18. doi:10.1080/14718800108405087
- Zartman, I. W., & Touval, S. (1985). International Mediation: Conflict Resolution and Power Politics. *Journal of Social Issues*, 41(2), 27-45. doi:doi:10.1111/j.1540-4560.1985.tb00853.x