Shaping peace: an investigation of the mechanisms underlying post-conflict peacebuilding

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Abstract
What shapes peace, and how can peace be successfully built in those countries affected by armed conflict? This paper examines peacebuilding in the aftermath of civil wars in order to identify the conditions for post-conflict peace. The field of civil war research is characterised by case studies, comparative analyses and quantitative research, which relate relatively little to each other. Furthermore, the complex dynamics of peacebuilding have hardly been investigated so far. Thus, the question remains of how best to enhance the prospects of a stable peace in post-conflict societies. Therefore, it is necessary to capture the dynamics of post-conflict peace. This paper aims at helping to narrow these research gaps by 1) presenting the benefits of set-theoretic methods for peace and conflict studies; 2) identifying remote conflict environment factors and proximate peacebuilding factors which have an influence on the peacebuilding process and 3) proposing a set-theoretic multi-method research approach in order to identify the causal structures and mechanisms underlying the complex realm of post-conflict peacebuilding. By implementing this transparent and systematic comparative approach, it will become possible to discover the dynamics of post-conflict peace.

Keywords: civil war, peacebuilding, post-conflict peace, set theory, QCA

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Introduction

What shapes peace, and how can peace be successfully built in those countries affected by armed conflict? So far, international studies have mainly focused on the study of war or armed conflicts, thereby neglecting peace as a phenomenon worth serious investigation. For most parts, peace has been defined in its negative way as the absence of war or hostilities, but this narrow definition turns out to be insufficient for a realistic analysis as it subsumes different characteristics. In contrast, broader concepts of peace are usually not suitable for studies dealing with the aftermath of violent conflict, since they are too extensive to capture the realities on the ground. An obvious gap thus arises around the issue of how to analyze post-conflict peace.

Since 1945, more than two-thirds of all wars are fought internally, whereas the number of civil wars has particularly risen after the end of the Cold War (Fearon and Laitin, 2003). The peace following the settlement of a civil war is in most cases extremely fragile and post-conflict countries face a higher risk of renewed warfare. Successful peacebuilding and the associated way out of the conflict trap are thus central themes of peace and conflict research (Bigombe et al., 2000: 346).

The knowledge of the conditions for successful peacebuilding is limited, which is especially surprising in light of the enormous political importance of this issue. So far, there have been qualitative case studies, which deal with individual factors that favour either the resurgence of already ended internal conflicts or make it less likely, but without providing a complete description of the phenomenon. In contrast, quantitative studies can indeed provide a more comprehensive overview of the impact various factors can have on a number of observable cases, but they also
mostly only relate to individual factors such as those leading to the outbreak of civil wars. Unfortunately, those two methodological camps of civil war research relate relatively little to each other. Due to their innate understanding of causality, set-theoretic methods like Qualitative Comparative Analysis (QCA) seem to be a suitable approach for combining the strengths of both camps, thereby bridging this methodological gap. To close this theoretical and empirical research gap, this paper therefore addresses the following research question: which remote and proximate conditions are necessary and sufficient for post-conflict peace?

This paper aims to investigate the interaction of individual factors in the complex field of peacebuilding, whereby it will become possible to create a comprehensive picture of the underlying causal mechanisms. The remainder of this paper is divided into four parts: after looking at current theoretical and methodological debates within peacebuilding and civil war research, set-theoretic multi-method research (MMR) is presented as a promising alternative methodological approach for peace and conflict studies. The possibilities for implementing a set-theoretic research design within peacebuilding research are illustrated in the main part of this paper by means of a QCA-based research design aiming to analyze the remote and proximate conditions of post-conflict peace. The paper concludes with a final summary of the discussion.

**What do we know about civil wars and the transition to peace?**

Although there seems to be increasing consensus about patterns of civil war onset and termination (Dixon, 2009), there is considerably less agreement regarding the causal dynamics of post-war transitions to peace or the factors causing a relapse.
to war\textsuperscript{2}. Nevertheless, some trends regarding violent conflict, peacebuilding success or post-conflicts risks seem to become apparent (Call and Cousens, 2008: 5-6).

First, civil wars are on the rise again. Following the end of the Cold War, the number of armed conflicts had decreased substantially, a trend, which was praised by some scholars as the demise of war and the beginning of a more peaceful world (Goldstein, 2012; Pinker, 2011; Pinker and Mack, 2014). This downward trend can partly be explained by the lack of large-scale interstate conflicts in the 21st century, which makes internal wars the prevalent form of warfare today, while “classic international conflict has practically disappeared from the modern world” (Tertrais, 2012: 9). A second determinant for this overall decline is the fact that more old wars have ended than new wars begun (Hegre, 2004: 244), which also supports the argument that successful peacebuilding is an important device for the reduction of the incidences of war. For the past decade, however, the Uppsala Conflict Data Program (UCDP) has recorded an uneven, yet clearly visible, upward trend in the number of internal armed conflicts, which reverses the previous findings (Pettersson and Wallensteen, 2015: 536)\textsuperscript{3}. In particular the number of internationalized armed conflicts, that is, conflicts in which one or more states contributed troops to one or both warring sides, is growing steadily in comparison to cases without such involvement.

\textsuperscript{2} This lack of consensus might be attributed to the fact that scholarship has just begun to eminently address issues of post-conflict peacebuilding for the last decade, whereas intense research on civil wars began in the 1990s.

\textsuperscript{3} For more information on UCDP’s dataset on armed conflict, see http://www.pcr.uu.se/research/ucdp/datasets/ucdp_prio_armed_conflict_dataset/
The large number of wars comes with a substantial increase in the number of battle-related deaths, which made 2014 the most violent year in the entire post-Cold War period (Pettersson and Wallensteen, 2015: 539). In a nutshell, both the number of major civil wars as well the estimates for battle-related deaths have returned to the level at which they were during the early 1990s and constitute a serious reason for concern (Einsiedel, 2014: 3).

Second, “an unfortunate number of wars that end have recurred” (Call and Cousins, 2008: 5). Third, the pattern of conflict termination has changed. Today fewer wars end in outright victory and, consequently, there is an increase in the number of peace agreements signed after armed conflicts (Einsiedel, 2014; Pettersson and Wallensteen, 2015). Fourth, several factors seem to have a direct

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4 Source: UCDP/PRIO Armed Conflict Dataset v.4-2015, compiled by author
5 While there is general agreement on the fact that a certain number of civil wars recur, the rate of recurrence remains contested.
influence on peacebuilding efforts and will be further discussed below. In general, the more risk factors are present in a post-conflict society, the greater the difficulties will be for successful peacebuilding.

The complexity of civil war research

Regardless of these trends, we still know remarkably little about the best ways to accomplish post-conflict peace. Part of the problem lies in the complexity of civil war research, which has evolved significantly in recent decades in terms of theoretical approaches, methodological techniques, and empirical research. Unfortunately, this diversity is characterized by case studies, comparative analyses and quantitative research, which relate relatively little to each other (Schlichte, 2002: 130). In addition, “the findings of these approaches often contradict each other, or are contradicted by subsequent research” (Newman and DeRouen, 2014: 4). The following short discussion will trace some strands of research, introducing those studies most dominant within scientific discourse.6

Most of the studies deal with the outbreak of civil wars (Collier and Hoeffler, 2004; Fearon and Laitin, 2003), the duration (Buhaug et al., 2009), or their termination (Mason and Fett, 1996). The post-conflict phase after civil wars and the influence of certain factors on the peacebuilding process have only been discussed in recent years7. As a result, an abundance of different theoretical approaches now exists with regard to civil wars. Those approaches mostly consider the influence of a particular factor on the onset or the duration of civil war or the following

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6 Detailed literature reviews on the causes of civil war are for example provided by Dixon (2009), Hasenclever (2002) and Schlichte (2002). For an overview of the literature on war termination see Gromes (2012), Hartzell et al. (2001) and Stedman (2002).

7 This area of research includes, amongst others, the studies of Fortna (2004), Hampson (1996), Rustad and Binningsbø (2012) and Walter (2002).
peacebuilding process (Blattman and Miguel, 2010). In order to point out some problems that current methods are facing when dealing with civil wars and peacebuilding, the research approaches will be classified by means of the applied method (quantitative or qualitative), and chronological stages of civil war (onset, termination, post-conflict peacebuilding), resulting in a six field matrix (see table 1).

(1) The research on civil war is dominated by the two major quantitative projects – the Correlates of War (COW) and UCDP (Pettersson and Wallensteen, 2015; Sarkees and Wayman, 2010), which are used as a reference point for many studies. The early 2000s were characterised by a shift towards large econometric studies, which dealt mainly with the outbreak of intrastate wars. The most significant examples include the study by Collier and Hoeffler (2004), which initiated the greed and grievance debate, as well as the one by Fearon and Laitin (2003), analyzing the connection of ethnicity, insurgency, and civil wars. The strength of these statistical analyses lies within the reproduction of comprehensive trends and the verification of the scope of assumptions on general relationships (Schlichte, 2002: 130). Comparably, however, those studies have provided few robust results.

(2), (5) Some studies on the termination of civil wars apply a multi-method design combining statistical analyses with case studies (Podszun, 2011; Probst, 2011). Toft (2010) provides a reassessment of the complete spectrum of civil war terminations and demonstrates that thorough security-sector reforms play a crucial role for the establishment of peace. Fearon (2004) identifies five classes of civil wars that end either more quickly or more slowly than most others.

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The problems of econometric studies are well-known: their main results are extremely sensitive to coding and measurement techniques; they entail a considerable distance between theoretic constructs and their indicators as well as several empirically equivalent paths; they suffer from endogeneity; they either lack clear micro-foundations or they are deficient; and finally, they are subject to tight and theoretically non-consolidated frameworks (Kalyvas, 2008: 397).
Table 1: Overview of different research approaches in civil war studies with examples

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(3) The debate on peacekeeping and peacebuilding is also very connected to the study of civil wars. Walter (2002) and Fortna (2004) use quantitative methods in order to analyze the influence of different factors on peacebuilding success and arrive at the conclusion that both the involvement of third neutral parties as well as the deployment of peacekeeping missions do play a crucial role. Doyle and Sambanis (2000; 2006) deliver “the most serious quantitative study of international peacebuilding to date” (Call and Cousens, 2008: 5). They use a data set consisting of civil wars between 1945 and 1999 in order to identify the critical determinants of peacebuilding success. Making War and Building Peace even caused a general debate on the effectiveness of peacebuilding interventions after civil wars. The criticism of the study went to such lengths that it resulted in general scepticism on

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9 For a summary of the research on peacekeeping see Fortna and Howard (2008).
whether quantitative methods can at all be used reasonably in peacebuilding research (King and Zeng, 2007).

(4) At the beginning of the 1990s, international peace and conflict research was characterized by the increase of qualitative research on the causes of war, including the studies of Anderson (1999), Barnett (2002), and Hampson (1996). Schlichte (1996) developed an explanatory framework for the onset of war in postcolonial Africa on the basis of comparative case studies. In his work on "small wars", Christopher Daase (1999) points out that today's international politics are not altered by major wars between individual states, but by small wars between states and non-state actors.

(6) The first studies focusing on peacebuilding processes and dealing with the implementation of peace agreements (Angola, El Salvador, Rwanda) were published in the 1990s, but tended towards an undifferentiated view of civil wars (Stedman, 2002: 3). Fen Osler Hampson's (1996) book Nurturing Peace was the first comprehensive study dealing with the question of why some peace agreements fail while others succeed in the termination of intrastate wars. Subsequent studies dealt with the influence of individual factors on civil war and conflict: ethnicity (Kaufmann, 1996), natural resources (Ross, 2004b), regime type (Doyle, 1986), regional factors (Henderson, 2000), ripeness (Zartman, 1985), spoiler (Stedman, 1997), peacekeeping missions (Doyle and Sambanis, 2006), transitional justice (Buckley-Zistel and Kater, 2011), and security guarantees (Walter, 1997).

Methodologically, most of the empirical studies on the nature of armed conflict and civil war are based upon national units of analysis or cross-national comparison and apply aggregated concepts such as national GDP, commodity exports or
fractionalization indices. This approach seems convenient, since the units of analysis are quite manageable and one can draw upon a highly developed range of datasets.

“However, a focus on aggregated national data and other aggregated factors can often obscure critically important local patterns and dynamics” (Newman and DeRouen, 2014: 5). As a response, this dominance of aggregated concepts caused a significant increase in qualitative-oriented studies, which are characterized by a focus on sub-national and local dynamics in order to generate more detailed knowledge (Simons and Zanker, 2012: 6).10 This “micro-level” event data offers researchers the ability to empirically assess a range of features below the state level (Clayton, 2014: 34). Rather new developments are disaggregated geo-referenced events-level data, which allow for the analysis of dynamics at the local level11.

The peacebuilding debate

The term peacebuilding first emerged through the work of Johan Galtung, who promoted systems being able to create sustainable peace. Those peacebuilding structures need to address the root causes of violent conflicts and support local capacities for conflict resolution (Galtung, 1976).12 The concept of peacebuilding came to broader public attention in 1992 with UN Secretary-General Boutros-Ghali’s Agenda for Peace (UN Secretary-General, 1992). Drawing on Galtung’s work, Boutros-Ghali initially defined peacebuilding in matters of a conflict continuum

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10 Kalyvas (2008: 399) has referred to this new focus on the micro-level of analysis as “micro-theoretic turn”.

11 The developments and advantages of disaggregated geo-referenced data are discussed by Buhag et al. (2009), Cederman and Gleditsch (2009) and Tollefsen et al. (2012).

12 These structures are close to Lederach’s concept of “sustainable peace”, which includes society-wide mechanisms that “promote justice and address the root causes of enmity before they can regenerate destabilizing tensions” (Lederach, 1997: ix).
ranging from preventive diplomacy to peacemaking and peacekeeping. Peacebuilding represented the end point of this continuum (Hartzell, 2014: 376), associated with the post-conflict phase and defined as “action to identify and support structures which will tend to strengthen and solidify peace in order to avoid a relapse into conflict” (UN Secretary-General, 1992: para. 21).

In the course of the 1990s, peacebuilding became a familiar concept and was broadly used almost to the point of incoherence. This was in part a consequence of the growing awareness of the complexity of post-conflict transitions, and partly by bureaucratic needs, as “more and more international agencies, parts of the UN system, and nongovernmental organizations began to incorporate ‘peacebuilding’ into their roles and missions” (Call and Cousens, 2008: 3). Even though peacebuilding is “generally understood as external interventions that are intended to reduce the risk that a state will erupt into or return to war”, a wide variety of terms related to peacebuilding have been established among different agencies (Barnett et al., 2007: 37-41). Here, peacebuilding refers to the “efforts to address societies that have experienced civil wars or other significant armed conflicts” in order to institutionalize peace (Call, 2008: 175). For the purpose of this paper, the focus is only on post-conflict peacebuilding, which represents the subset of such actions undertaken after the termination of armed violence.

Especially the concept of liberal peacebuilding, most prominently pursued by the UN, has been a subject of intense debate within the field of International Relations (IR) as well as peace and conflict studies. Contemporary peacebuilding is ideationally rooted in liberal theories, which are based on “the assumption that

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13 He later dropped this notion of a continuum in his *Supplement to an Agenda for Peace* and extended peacebuilding across the whole conflict spectrum.
democratization and marketization foster peace in countries just emerging from civil wars” (Paris, 2004: 41). Peacebuilding is thus founded on the “liberal peace thesis” articulated by classical thinkers like Kant or Locke, and rests on the principles of liberal democracy (Doyle, 1983). Thus, political and economic liberalization would appear to be a promising strategy to establish peace in post-war states. The notion of liberal peacebuilding currently still provides the dominant framework within contemporary peace operations without any real alternatives: “the liberal peace is operationalized in highly standardized formats. It becomes a peace from IKEA; a flat-pack peace made from standardized components” (Mac Ginty, 2008: 144-145).

As a result, liberal peacebuilding has attracted criticism from a variety of theoretical perspectives for similar reasons and has evolved into one of the central debates in IR (Chandler, 2015; Duffield, 2007; Pugh, 2005; Richmond and Mac Ginty, 2015). In general, those critics have argued, that liberal peacebuilding “applies a standardised liberal social model that is insensitive to local contexts, disempowers local communities and in practice has delivered poor-quality outcomes characterised by superficial democratisation, entrenched corruption and worsening socio-economic inequalities” (Selby, 2013: 58). From a post-colonial perspective, liberal peacebuilding is a hegemonic project and wedded to the colonial tradition where action is determined from above and outside (Darby, 2009). Poststructuralists have claimed that peacebuilding is rooted in liberal international norms and “is part of

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14 The idea of applying liberalization as a cure for violent conflicts is not new and was most prominently promoted by U.S. President Woodrow Wilson and his foreign policy at the end of World War I.
15 Priorities for liberal peacebuilding include the execution of early elections, the promotion of good governance, measures for economic recovery and reconstruction, major economic reforms and the (re-)construction of physical infrastructure.
16 The theoretical divisions include realist, Marxist, liberal, critical, post-colonial, feminist, post-structuralist and constructivist scholars.
17 For further references to the critique of liberal peace and peacebuilding see Newman et al. (2009), Pugh at el. (2008), and Richmond (2006; 2010).
the complex, mutating and stratified networks that make up global liberal governance” (Duffield, 2001: 12).

The critical approach on peacebuilding is also directly connected to the “local turn” in peace and conflict studies and the discussion on hybridity. Within the peacebuilding debate, there is an increased interest in “the local” and local dimensions of peace. Local peace “is normally an everyday and emancipatory type”, and opposed to the “dominant forms of peace-support interventions led by states and institutions in the global North”, which rest on notions of universalism (Mac Ginty and Richmond, 2013: 769, 772). The interactions between external and local actors often result in hybrid forms of peace, which represent “informal and non-standard systems of governance that have arisen in conflict affected contexts” (Mac Ginty and Richmond, 2016: 219).

Acknowledging the critical peacebuilding debate, this paper adopts a moderate liberal position, which holds that liberal peacebuilding, despite its limitations, still has a moderate success rate in ending violence and to manage violent conflicts (Paris, 2010). There are several reasons for adopting this perspective: First, despite the claims of the critics, the principles represented by liberal peacebuilding (freedom, democracy, human rights, etc.) are worth pursuing. Second, so far there is no viable alternative to some form of liberal peacebuilding, since liberal peace critics have failed to come up with applicable alternatives. Third, the critic itself fails to escape liberal paradigms and to address systematically its Eurocentrism (Heathershaw, 2013; Sabaratnam, 2013). Fourth, a peacebuilding

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18 Here, “local” means “the range of locally based agencies present within a conflict and post-conflict environment, some of which are aimed at identifying and creating the necessary processes for peace, perhaps with or without international help, and framed in a way in which legitimacy in local and international terms converges” (Mac Ginty and Richmond, 2013: 769).
concept that is grounded in a liberal perspective can also resort to the critical debate and take local contexts into account – as pointed out in the remainder of this paper.

**QCA as an alternative approach for peace and conflict studies**

As in other areas of the social sciences, a kind of methodological competition between qualitative and quantitative research has also taken root within peace and conflict studies. According to Mahoney and Goertz (2006: 227) these two research traditions can even be understood as different cultures – characterised by different values, beliefs and norms. After several years of debates about the best methodological approach for the social sciences, it is time for an intensive dialogue across the different “cultures” (George and Bennett, 2005; Goertz and Mahoney, 2012; King et al., 1994). These methodological disputes suggest the demand for functional alternatives that are able to do justice to both traditions in social sciences (Mochtak, 2013: 74). Such an alternative is offered by transparent, systematic and comparative set-theoretic research approaches that have, until now, been rarely applied in peace and conflict studies. All set-theoretic methods share at least three common features: they are “approaches to analysing social reality in which (a) the data consists of set-membership scores; (b) relations between social phenomena are modelled in terms of set-relations; and (c) the results point to sufficient and necessary conditions and emphasise causal complexity in terms of INUS and SUIN causes” (Schneider and Wagemann, 2012: 6).

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19 For an overview of the debate see Goertz and Mahoney (2012).
20 In this regard, the increasing publications of articles that are based on multi-method designs and combine the advantages of different methods represent a first positive signal.
21 Insufficient, but necessary part of an unnecessary but sufficient condition.
22 Sufficient, but unnecessary part of an insufficient but necessary condition.
23 For a comprehensive discussion on the characteristics of set-theoretic methods, see Schneider and Wagemann (2012: 3-8).
In addition, set-theoretic reasoning is nothing new for social sciences and many, although partly implicit, applications can be accounted for (Mahoney, 2010: 135). Some authors even go as far as to equate qualitative research with set theory (Goertz and Mahoney, 2012). In general, set theory can be used for concept formation (Goertz, 2006), for the creation of typologies (George and Bennett, 2005), and for causal analysis (Mahoney, 2010).

**QCA in a nutshell**

Qualitative Comparative Analysis is perhaps the most formalized set-theoretic method and distinguishes itself from the other approaches by the combined presence of three features: first, QCA aims at causal interpretation; second, it uses so-called truth tables, which enable the researcher to visualise and analyze central features of causal complexity; third, QCA approaches apply the principle of logical minimisation (Schneider and Wagemann, 2012: 8-9). QCA provides a new way of data interpretation and data analysis and was explicitly developed by Charles Ragin (1987; 2000; 2008) as a middle way between the two camps of case-oriented (or qualitative) and variable-oriented (or quantitative) social research. Ragin’s ambition is to provide a “real alternative to conventional practices [that] is not a compromise between qualitative and quantitative [but rather] transcends many of their respective limitations” (Ragin, 2008: 6).

QCA is based on set-theoretic relations and focuses on explicit interactions between causal conditions (Emmenegger, 2011: 344). However, QCA is not only a technique for data analysis but also a research approach (Berg-Schlosser et al.,

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24 Logical minimisation refers to a process, “by which the empirical information is expressed in a more parsimonious yet logically equivalent manner by looking for commonalities and differences among cases that share the same outcome” (Schneider and Wagemann, 2012: 9).
2009; Rihoux and Ragin, 2009; Wagemann and Schneider, 2010). As a research approach, QCA refers to the processes before and after the data analysis – or the back-and-forth between ideas and evidence (Ragin, 1987). QCA as a method – sometimes called the “analytic moment” (Ragin, 2000) – “consists of finding (combinations of) conditions that are subsets or supersets of the outcome and thus to arrive at sufficient and necessary (or INUS or SUIN) conditions” (Schneider and Wagemann, 2012: 11). In this regard, QCA is increasingly perceived as a qualitative, case-oriented method.

QCA combines the key strengths of both qualitative and quantitative approaches and thus strives to meet two obvious contradicting goals: “not only gathering in-depth insight in the different cases and capturing the complexity of the cases (gaining ‘intimacy’ with the cases) but also producing some level of parsimony across cases, thereby allowing forms of ‘modest generalization’” (Rihoux and Marx, 2013: 168). In general, the analysis of data in QCA proceeds in three explicit steps25: “One must first produce a data table, in which each case displays a specific combination of conditions (expressed in terms of set membership for all the conditions) and an outcome (also expressed in set membership). The software then produces a truth table that displays the data as a list of configurations. A configuration is a given combination of some conditions and an outcome. A specific configuration may correspond to several observed cases, thereby producing a first step of syntheses of the data. The key following step of the analysis is Boolean minimization – that is, reducing the long Boolean expression, which consists in the long description of the truth table, to the shortest possible expression (the minimal

25 See also textbooks by Rihoux and Ragin (2009) or Schneider and Wagemann (2012).
formula, which is the list of the prime implicants) that unveils the regularities in the data. It is then up to the researcher to interpret this minimal formula, possibly in terms of causality” (Rihoux and Marx, 2013: 169).

Compared to other methods, QCA is also especially transparent, as it demands from the researcher to make choices on his or her own and to justify these choices.

**The value of QCA for peace and conflict research**

Due to its innate understanding of causality, which is based on equifinality, conjunctural causation and asymmetric causal relations, QCA provides an appropriate method for peace and conflict studies. Based on their underlying complex structures, the central phenomena peace, war and conflict seem to downright insist on a set-theoretic research design. First, it can be assumed that there are different, mutually non-exclusive explanations and causal paths contributing to the phenomena (equifinality). Second, in complex fields, such as peace, individual conditions can only unfold their effects in combination with others (conjunctural causality). Third, due to asymmetric causal relations, the explanation of one phenomenon is based on other causal mechanisms than the non-explanation. Due to this underlying comprehension of causality, a set-theoretic research approach appears to be very promising both for testing existing assumptions as well as enhancing existing theories in the field of peace and conflict research.

In principle, QCA is able to combine the best of qualitative and quantitative research traditions (Berg-Schlosser et al., 2009: 13)\(^\text{26}\). By allowing a systematic

\[^{26}\text{In contrast to statistics and traditional case studies, QCA shows some advantages: While statistics can include interaction effects, the number of those that can be considered is very limited. In addition, asymmetric causal relations cannot be accounted for with using quantitative analyses and}\]
comparison between cases, QCA complements the results of case studies. In addition, QCA research focuses mostly on questions that differ from those that can be answered by statistical research projects or qualitative case studies. In comparison to other disciplines, most of today’s QCA applications belong to field of political science. Despite some promising applications in the area of peace and conflict studies (Bretthauer, 2015; Mello, 2014; Pinfari, 2011), QCA has not yet become a common method. In order to combine this abstract methodological argumentation with an illustrative example, the following chapter introduces a set-theoretic MMR research design on the dynamics of post-conflict peace.

**Dynamics of post-conflict peace: a QCA-based research design**

In order to illustrate how a corresponding set-theoretic research design can look like, this chapter presents a research project analyzing the conditions of successful peacebuilding after civil wars. Based on the above-mentioned theoretical and methodological gap within civil war research, the following research question is formulated: which remote and proximate conditions are necessary and sufficient for post-conflict peace? Therefore, successful peacebuilding following intrastate wars constitutes the central object of investigation. The considered timeframe ranges from 1990 to 2010 and includes all incidents of civil wars worldwide. Setting the starting point for case selection in 1990 is due to the change in international warfare after the end of the Cold War (Chojnacki, 2006). Closing the case selection in 2010 is necessary in order to allow for a subsequent consideration of case studies focus mostly only on the explanation of the outcome instead of also considering the non-outcome (Bretthauer, 2015: 611).

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27 This research design is part of the PhD project of the author, which carries the working title “Making peace last: a systematic comparative case analysis of successful post-conflict peacebuilding”.
of the peacebuilding period spanning five years. Many studies utilise this five-year timeframe as it represents the most critical stage for successful peacebuilding (Collier et al., 2003).28

In this project, the UCDP/PRIO Armed Conflict Dataset (Pettersson and Wallensteen, 2015) serves as the starting point for the compilation of relevant cases. In accordance with UCDP coding logic, the case selection distinguishes between armed conflicts and civil wars and only cases that reach the intensity level of civil wars are considered for the analysis in order to make the case selection more parsimonious.29 A case consists of a particular armed conflict between a government and at least one rebel group, therewith shifting the level of analysis to the subnational level. This shift seems sensible, since civil wars rarely encompass entire states, and local processes can have a great impact on conflict and peacebuilding dynamics (Cederman and Gleditsch, 2009). In order to investigate the conflict below the national level, this project uses disaggregated data on civil wars whenever possible. The spatial information for the conflict region is obtained from the UCDP Georeferenced Event Dataset (UCDP GED), consisting of event-based and georeferenced data on all three of the UCDP’s types of organized violence (Sundberg and Melander, 2013). The analysis is supposed to include both successful instances of peacebuilding as well as unsuccessful ones and the objective of this project is to determine the conditions under which peacebuilding can be successful.

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28 “Part of the logic here is that two years seems a too short period to declare success, and ten or more years seems too long to be sure than any new war actually reflects factors associated with a prior peacebuilding effort” (Call, 2008: 177).

29 Wars are defined as “conflicts with at least 1,000 battle-related deaths in one calendar year” (Pettersson and Wallensteen, 2015: 537). A focus on civil wars leads to a better understanding of the effects of this most intense level of hostilities.
Data and operationalization of the outcome

In order to determine the necessary and sufficient conditions for successful post-conflict peacebuilding, it is necessary to first define and operationalize the outcome. As a consequence of the divergent concepts, definitions and approaches to peacebuilding, a generally accepted list of criteria for the measurement of its “success” has not emerged yet. The most widely cited schema for classifying and evaluating peacebuilding initiatives is a three-fold set of broad standards, which cover different levels of complexity regarding peacebuilding success (Call and Cousins, 2008: 6-8).

The fundamental purpose of peacebuilding is still the establishment of conditions for stable and lasting peace in countries that are just emerging from armed conflicts or civil wars. Thus, the aim is to generate a definition that enables the analysis of various steps of peacebuilding success and simultaneously makes allowances for the characteristics of post-war societies. In keeping with its central aim – avoiding relapse to war – peacebuilding is considered to be successful, if it results in a stable post-conflict peace. Here, post-conflict peace is defined as the absence of violence or fear of violence combined with an adapted level of political and socio-economic development, which taken together, create and sustain peaceful societies that emerge from internal armed conflicts. The operationalization of the outcome is based on the post-conflict peace scale, which consists of three dimensions (security, political, socio-economic), each of which contains one indicator that serves as a proxy for the respective core aspect of post-conflict peace (Leib, 2016).

The indicator “no residual violence” is associated with the security dimension and evaluates whether a country is able to provide physical security for its citizens by
means of the potential recurrence and intensity of armed conflict\textsuperscript{30}. The political dimension assesses whether a government abides by the rule of law and is proxied by an indicator measuring the observance of human rights\textsuperscript{31}. The socio-economic dimension assesses how well a state meets the basic human needs of its citizens and provides for a reasonable development\textsuperscript{32}. The scale allows for a fine-grained assessment of a country’s post-conflict peace and enables substantial analyses with regard to the success of peacebuilding or conflict resolution efforts\textsuperscript{33}.

Figure 2: Components of post-conflict peace

The three components of the post-conflict peace scale are interconnected and depict a country’s post-conflict capacities: post-conflict peace has been achieved when there is no residual violence, human rights are evenly respected and the society manages to sustain a reasonable economic and human development. The

\textsuperscript{30} Residual violence is determined by the average number of fatalities per year during the first five post-war years.

\textsuperscript{31} The provision of fundamental human rights leads to less violence and is a basic requirement for sustainable peace. The source for this indicator is the Political Terror Scale (PTS), which measures levels of political violence and terror that a country experiences in a given year.

\textsuperscript{32} Information for “reasonable development” is sourced from the Human Development Index (HDI).

\textsuperscript{33} For more information regarding the Index of post-war peace, the data sources as well as the detailed calibration of the individual three indicators, see Leib (2016).
outcome is thus understood as the creation of stable post-conflict peace. Following set-theoretic reasoning, the concept of post-conflict peace has to be converted into a set. Since, in the social sciences, concepts are often vague and do not allow for clear boundaries, which would be needed for the special case of the dichotomous crisp set variant (csQCA), this paper applies the fuzzy set variant of QCA (fsQCA), which allows for different membership degrees of cases in sets. The three individual components were operationalized as fuzzy sets and have been combined in a meaningful way and in accordance with the definition for post-conflict peace. The scale is based on a six-value fuzzy set, which accounts for the three underlying components and has been calibrated as the outcome “post-conflict peace”.

Table 2: Calibration of fuzzy values for the outcome "post-conflict peace"

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Complete post-conflict peace: absence of violence or fear of violence, combined with a secure rule of law and a reasonable human development.</td>
</tr>
<tr>
<td>0.8</td>
<td>Considerable post-conflict peace: practically no residual violence, human rights violations are few and human development is moderate.</td>
</tr>
<tr>
<td>0.6</td>
<td>Partial post-conflict peace: absence of low-level violence, rule of law is not applied consistently and decent human development.</td>
</tr>
<tr>
<td>0.4</td>
<td>Limited post-conflict peace: possibility of low-level violence, but political terror may affect large numbers of the population and human development is low.</td>
</tr>
<tr>
<td>0.2</td>
<td>Marginal post-conflict peace: possible recurrence of armed conflict, human rights violations are common and human development is insufficient.</td>
</tr>
<tr>
<td>0</td>
<td>Non-existent post-conflict peace: reversion to civil war within the first five post-conflict years.</td>
</tr>
</tbody>
</table>

In fuzzy sets, different levels of membership are distinguished, and the fuzzy boundaries are recorded numerically (Ragin, 2000: 154). Thus, both qualitative theoretically derived differences between individual and quantitative variations of qualitative similar cases can be distinguished.
In order to calibrate the individual membership scores for the fuzzy set “post-conflict peace”, the following coding rules were applied:

(1) cases that have been assigned the fuzzy value 0 in the subset “residual violence” are also coded as 0 in the outcome “post-conflict peace”, since a country that experiences a renewed civil war cannot be coded as being peaceful;

(2) the average set membership in the three subsets (residual violence, observance of human rights, reasonable development) is calibrated for the remaining cases;

(3) the average scores are rounded up and represent the cases’ membership scores in the outcome “post-conflict peace”.

Calibrating remote and proximate peacebuilding conditions

Within the field of peace and conflict studies, there is yet no answer to the whys and wherefores of war. Further disputed are the conditions of war termination, the causes of peace, or factors of successful peacebuilding after violent conflicts (Matthies, 1997; Müller, 2005)35. As has already been highlighted, there exists a multitude of different theoretical approaches and several factors appear to be correlated with peacebuilding, failed peace processes and/or war recurrence (Call and Cousens, 2008: 5). This paper draws on those approaches, which can exert a positive or negative influence in post-conflict situations and can be divided into two categories: remote factors of the conflict environment and proximate peacebuilding

35 For an elaboration on the different types and functions of the causes of peace see Müller (2005: 63-74).
factors\textsuperscript{36}. It thus combines the methodological reasoning of a two-step QCA approach with the hypotheses formulated by peacebuilding research. The literature on civil wars and peacebuilding has identified many more possible factors than can be dealt with in this project. Therefore, only those factors, which have been shown to have a strong influence on the peacebuilding process, are considered for analysis.

**Conflict environment conditions**

The remote factors of the conflict environment remain relatively stable over time and can also be described as structural or context factors. Here, they are defined along a temporal dimension and hence have their origin in the pre-peacebuilding phase. Therefore, conflict environment factors are almost entirely beyond the range of influence of peacebuilding actors. The research approaches on remote conflict environment factors are diverse and cover various areas. War costs, for example, are generally measured in two ways: war duration and war intensity. The longer the previous civil war lasted, the less likely it is to recur. This suggests a war weariness effect: “those who have endured particularly drawn-out wars have, if anything, less of a tendency to fight again” (Fortna, 2004: 287). In contrast to war duration, “the deadliness of the previous conflict makes a nation more likely to experience a relapse into civil war” (Quinn et al., 2007: 185). The research approach focusing on natural resources argues that peacebuilding success would be much more difficult to achieve in countries having a large deposit of natural resources at their disposal (Rustad and Binningsbø, 2012).

\textsuperscript{36} Remoteness and proximity can be defined along various possible dimensions, e.g. in terms of space and time (Schneider and Wagemann, 2012: 253).
Many intrastate wars and conflicts have an ethnic or religious component and are often depicted as being particularly intense: “ethnic groups, on average, are likely to have more grievances against the state, are likely to have an easier time organizing support and mobilizing a movement, and are more likely to face difficult-to-resolve bargaining problems” (Denny and Walter, 2014:199). Finally, a country’s terrain can have a certain impact on the prospects for armed conflict, because “the ability to retreat to mountainous terrain appears to enhance the prospects of rebellion since it can serve both as a staging ground for war and as a home to avoid the detection from government forces” (Walter, 2010: 17).
Peacebuilding conditions

In contrast, proximate peacebuilding factors vary over time and have their origin in the recent past. They can be relatively easy to modify by peacebuilding actors and often describe human actions (Schneider and Wagemann, 2012: 253). Compared to remote conflict factors, proximate factors can influence the peacebuilding process in a more direct way. From a temporal view, they come into being after the termination of the civil war. The effective disarmament and demobilization of warring parties can help to restore security, which is necessary for the successful implementation of peace agreements after civil wars (Berdal, 1996; Spear, 1996). In intrastate conflicts, almost everyone – whether civilian or combatant – is affected by violence and traumatic experiences, and the post-war societies are often strongly divided. By means of a clear break with the past, transitional justice promotes the workup and social reconciliation in order to prevent future outbreaks of violence (Mani, 2005). According to Hartzell and Hoddie (2003), the creation of power-sharing institutions is positively associated with durable peace. Among the proximate peacebuilding factors, the international commitment has received particular attention. Peacekeeping forces can resolve the credible commitment problem by enforcing security guarantees against either side defecting from the peace agreement (Mason et al., 2011). Finally, civil wars often cause people to flee their homes and livelihoods in search of safety, either within their one country or across national borders (Salehyan, 2014). Therefore, it is not surprising that many scholars have argued that lasting peace is not possible without addressing the issue of refugees and internally displaced persons (IDPs) and to providing for their successful return (Adelman, 2002).
Table 4: Research approaches on peacebuilding factors with hypotheses

<table>
<thead>
<tr>
<th>Research approach</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disarmament, demobilisation and reintegration (DDR)</td>
<td>If former warring parties are disarmed and reintegrated into society, then post-conflict peacebuilding will be more successful.</td>
</tr>
<tr>
<td>Reconciliation</td>
<td>If reconciliation and transitional justice measures are implemented, then post-conflict peacebuilding will be more successful.</td>
</tr>
<tr>
<td>Power-sharing</td>
<td>If power-sharing arrangements are extensive, then post-conflict peacebuilding will be more successful.</td>
</tr>
<tr>
<td>International commitment</td>
<td>If international involvement is comprehensive, then post-conflict peacebuilding will be more successful.</td>
</tr>
<tr>
<td>Repatriation of refugees</td>
<td>If refugees and IDPs can satisfyingly return to their homes, then post-conflict peacebuilding will be more successful.</td>
</tr>
</tbody>
</table>

As an example for ways of operationalizing a peacebuilding condition, the calibration of one possible proximate condition will be illustrated. Different studies reach the conclusion that successful peacebuilding after civil wars is more likely, if the international commitment is comprehensive. Since the deployment and the mandate of a peace mission constitute a key factor for the measurement of international capacities, the type of international involvement (peace missions and sanctions) in the respective conflict is used as an indicator for the condition of comprehensive international commitment. Therefore, the following six-value fuzzy set can be derived.

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Table 5: Calibration of fuzzy values for the condition "international commitment"

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Comprehensive international commitment: Enforcement mission</td>
</tr>
<tr>
<td>0.8</td>
<td>Strong international commitment: Multidimensional peacekeeping</td>
</tr>
<tr>
<td>0.6</td>
<td>Moderate international commitment: Traditional peacekeeping</td>
</tr>
<tr>
<td>0.4</td>
<td>Weak international commitment: Observatory mission</td>
</tr>
<tr>
<td>0.2</td>
<td>Minimal international commitment: Sanctions</td>
</tr>
<tr>
<td>0</td>
<td>No international commitment</td>
</tr>
</tbody>
</table>

Bringing it all together: a roundup of the research design

With a QCA-based research design different equifinal paths leading to post-conflict peace ought to be identified. The design seems to be promising both for testing existing assumptions as well as for enhancements of established theories on peacebuilding in post-conflict societies. The objective of this research design is thus twofold. At first it aims to determine the necessary and sufficient conditions for successful post-conflict peacebuilding on the basis of a set-theoretic research design. It collects basic data on intrastate wars for the calibration of possible conditions for post-conflict peace. Second, the presented project will enhance the methodological range of peace and conflict research. By applying QCA, the establishment of this method can be promoted and future applications will be facilitated.

The research question regarding post-conflict peace ought to be answered by taking different theoretical perspectives into account and by applying different methodological approaches. The research design follows the principles that govern
set-theoretic MMR and is thus based on two levels of analysis: (1) a fuzzy-set QCA (fsQCA), and (2) structured and focused comparative case studies. Following Sartoris’ (1970) “ladder of abstraction”, the logic behind the levels of analysis rests upon a taxonomy of descending degrees of abstraction. The higher the level of abstraction, the fewer features are exhibited by the respective level and may thus be tested: “we make a concept more abstract and more general by lessening its properties or attributes” (Sartori, 1970: 1041). The respective higher level represents the universe of cases for the subsequent level, thereby systematizing and simplifying the classification and typology of the cases to investigate. By means of combining theories, data and methods, different approaches for the study of post-conflict peacebuilding shall be used in order to improve the validation of the research findings.

As shown above, studies on post-conflict peacebuilding have analyzed a variety of explanatory factors, and some of them provided rivaling hypotheses. The selection of the conditions is divided into two steps and follows the methodological reasoning of a two-step QCA approach (figure 3). At first, context conditions will be identified in order to clarify in which environment peacebuilding can be successful at all. In a second step, proximate conditions, which may change over time, will be included in the QCA. These factors can be influenced by various actors and can therefore play an important role for peacebuilding (see figure 3).

A methodological distinction of the conditions with regard to their causal effects into remote and proximate conditions appears reasonable and thus suggests the application of a two-step fsQCA (Schneider and Wagemann, 2006: 760). At the same time overly complex results will be avoided, as some logically possible, not
necessarily empirically existing configurations of case characteristics can be excluded a priori by theoretical reasoning. In a first step, the analysis determines the combinations of remote conditions in which the outcome is more likely to occur than in other contexts. The subsequent step then leads to the formulation of causal configurations that result in post-conflict peace (Schneider and Wagemann, 2006: 761).³⁸

![Figure 3: Selection of conditions for the application of a two-step fsQCA](image)

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³⁸ As the two-step analysis has not been completed yet, no results can be presented at this point.
At the second level of analysis, comparative process tracing reveals a better understanding of the interaction between the causal mechanisms as well as their impact on the outcome and yields additional value compared to the application of just one of the methods: “process tracing is an invaluable complement for QCA in order to discern the causal mechanisms behind a set-relational pattern and further improve the theory and QCA model” (Schneider and Rohlfing, 2013: 588). Within set-theoretic MMR, there are several possible forms of post-QCA within-case analysis and comparison. This project will focus on a discussion of sufficiency. The sufficient relations between fuzzy sets can be visualized with a so-called XY plot, which plots the fuzzy-set membership of a case in the sufficient solution term X against its fuzzy-set membership in the outcome Y. Following the logic of fuzzy-set relations, X is a perfect subset of Y and fully consistent with the statement of sufficiency, if all cases are located above the secondary diagonal (Ragin, 2000). In order to highlight the important role that differences in kind play for fuzzy-set case selection, a 2 x 2 matrix (which runs through the qualitative anchors of 0.5 for X and Y) can be added to the XY plot, resulting in an enhanced XY plot (see figure 4).

There are six types of cases in analyses of sufficiency. In order to uncover the causal mechanisms that underlie the set-relational patterns, the project will start with the analysis of a typical case. Typical cases for sufficiency are located in zone 1 in the enhanced XY plot and the principles of unique membership and maximum set membership will be applied in order to find the most typical case (Schneider and Rohlfing, 2013). In a second step, the typical case will be compared to a maximal different typical case in order to unravel the causal mechanisms that link the

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39 Due to the importance of intimate case knowledge for a successful QCA, this method should always be combined with (comparative) within-case studies.

40 For a complete description of the six types of cases see Schneider and Rohlfing (2013: 584-588).
(combination of) conditions to the outcome (Gerring, 2010; Shively, 2006). In a final step, the typical case will be compared to a deviant case for consistency. Here, process tracing aims at identifying an omitted condition that separates the deviant case from the typical case and should be added to the analysis. Deviant cases for consistency are located in zone 3 and the ideal comparison includes the most typical case and the deviant case that has a high membership in the solution term, but is a non-member of the outcome.

Figure 4: Enhanced XY plot and types of cases in fsQCA of sufficiency

Source: Schneider and Rohlfing (2013: 585)
The case studies at the second level of analysis will allow for a deeper analysis of specific mechanisms and will be pursued in two ways. First, information on the civil war cases and the subsequent peacebuilding efforts will be gathered from diverse sources in order to represent a broad spectrum of the discussion. Sources include newspaper articles, reports from international peacebuilding actors, archival material, government reports, scholarly articles, and material provided by NGOs and civil society. Second, the author plans to undertake field research to engage both with national elites and civil society and to conduct interviews and focus groups in order to include a local perspective in the analysis.

The result of the two-step QCA will consist of a combination of factors that interact and operate before or during the peacebuilding process. Consequently, they shall provide a comprehensive picture of the phenomenon’s underlying causal mechanisms and dynamics. The case studies will connect the comprehensive findings to a deeper within-case knowledge. Taken as a whole, the entire results will have far-reaching political relevance since they identify those areas in which the peacebuilding engagement of the international community has a positive effect and may increase the chances of lasting peace. The construction of various causal paths allows for a typological classification, which may lead to a model of successful post-conflict peacebuilding.

**Conclusion**

The following results can be derived from the preceding discussion: (1) civil war research is characterized by a methodological dualism of the quantitative and qualitative research camps and case studies, comparative analyses and quantitative
research relate relatively little to each other; (2) due to their innate understanding of causality, set-theoretic methods, and especially QCA, represent a promising methodological enhancement for peace and conflict research; (3) QCA is particularly suited for the analysis of complex dynamics of peace and conflict processes; (4) by applying set-theoretic MMR, it will be possible to analyze the remote and proximate conditions which are necessary and sufficient for successful post-conflict peace.

The presented research design broadens the methodological toolbox of peace and conflict research and is innovative for the following reasons: First, it provides guidance for the application of set-theoretic multi-method research within peace and conflict studies. Second, it presents a two-step QCA approach, which so far, has not been applied to peacebuilding research. Third, the project aims at including geo-coded data whenever possible and to shift the level of analysis from the national to the local. The innovative combination of set-theoretic methods and geo-referenced data makes it possible to study large and complex peacebuilding processes on a local level and to analyze them in a comparative way.

The aim of this paper was to argue for a methodological pluralism and an open discussion on innovative research approaches in peace and conflict research. In the last 20 years, the field of qualitative methods has, in particular, developed several new research approaches, such as process tracing, network analysis, QCA or MMR. Most notably, QCA with its understanding of causality constitutes a suitable method for civil war research and provides new possibilities for data interpretation and data analysis. In the context of a multi-method research approach, QCA can contribute to a better understanding of the complex mechanisms underlying the central research objects of peace and conflict research. Nevertheless, much research still needs to be
done in order to understand the dynamics of post-conflict peace and this research project aims at identifying a small part of that puzzle.
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