Signal in Slaughter: Endogenous Conflict Dynamics and Violence Against Civilians in the 1948 War



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Abstract

Why do some civilian communities suffer from violent targeting at war while others do not? In this dissertation I aim to offer an interactive and dynamic explanatory framework to why some experience lethal and non-lethal victimisation at war. I argue that individuals grapple with uncertainty at war by determining their decision making based on information from the micro and macrolevel. I use this approach to explain different dynamics of violence in the 1948 Palestine War, an overlooked case study that is key to the Israeli/Palestinian conflict. Across three papers, I show that news about mass atrocity lead to flight, which then self-reinforced to create a mass exodus that undermined the Palestinian side in the war; macrolevel signals created cases of local cooperation between Palestinian and Jewish villages but this then failed as a result of changes to the macrolevel; and that the logic of targeting of mass killings changed, with attacks first being aimed at villages that collaborated with enemy combatants and later was aimed at villages that were peaceful and collaborative, as a result of the changing macrolevel setting. I develop these assertions with formal and computational modelling, and test the resulting predictions with the combination of statistical analysis of original fine-grained data on the Palestinian exodus and numerous qualitative case studies, aiming at causal inference. The dissertation contributes to our understanding of violence against civilians in armed conflict and to the salient debate over the events of the 1948 war.

1 Introduction

> "To write more truthfully about what happened in 1948 is not merely to practice professional historiography; it is also a profoundly moral act of redemption and a struggle for justice and for a better world" (Edward Said, quoted in Nur (2008).

> "The historiography of the 1948 events in Palestine remains a work in progress and a true battlefield, for in this case, writing history is one of the issues at stake in the conflict itself" (Picaudou 2008).

The events of the 1948 War in Palestine, and in particular violence against civilians in the war, remain the foundation of paramount scholarly and political contention. The scholarly debate relates to questions over the overarching nature of the violence. While, the plain, factual information on violent events is surprisingly often agreed upon, there is disagreement over whether the Palestinian Exodus[1] was part of a premeditated and strategic ethnic cleansing campaign, with the displacement being violently caused and enforced (Morris 2004; Pappé 2007), or a random, natural by-product of the war and the displacement a voluntary decision (Jangid 2012). This debate reached a deadlock due to methodological stasis: remaining written evidence can not give smoking-gun evidence in favour of an over-arching strategy of ethnic cleansing using massacres of civilians,[2] while oral accounts written down by Palestinian historians tend to support it more (Nazzal 1978; Sayigh 1979).

The political debate over 1948 is more stern, and has resulted in prolonged political implications and important legacies, continuously shaping the conflict. The 1967 war and occupation of land in it is often seen as the root cause of the conflict. But in practice, previous negotiation attempts had more success in solving the issues arising from it then

[1] Name for the series of events that included violence, displacement, and dispossession experienced by Palestinian civilians in the 1948 war.

[2] Perhaps due to official and systematic erasure of evidence from Israeli archives, see Anziska (2019).

in reaching agreement over the handling of refugees from the 1948 war (Barak 2005). As Lustick (2006) argued, Israeli refusal to recognize the events of the war is still plaguing any peace negotiations. This is a particular result of the effect of collective memory of the events on the Israeli public (Nets-Zehngut 2016). Indeed, Haran Diman and Miodownik show that microlevel events at the 1948 Palestine War affect the voting of both Israeli Jewish citizens (Haran Diman and Miodownik 2023a) and Palestinian Citizens of Israel (Haran Diman and Miodownik 2023b).

Despite the scholarly importance and political influence of the 1948 Palestine War, there has been very limited research on it in the social sciences and it's only narrowly addressed in the empirical literature. An early notable exception is Downes (2008), which used a bird-eye view of the war as a comparative case study in his path-breaking book on violence against civilians. More recently, there has been a surge of quantitative research on the events of the war—studying the effects of international legitimacy (McAlexander 2023), social cohesion (Arnon et al. 2023), or devolution of state capacity (Muchlinski 2021) on violence, displacement, and survival in the war.

I argue that this is fruitful. This is, first, because the use of empirical tools from the social sciences to systematically examine the events of the war could help elucidate them. In particular, advance quantitative methods and causal inference, which are not used by historians, can help further our understanding of this crucially important case study by breaking the methodological deadlock in the historiographical debate. But, secondly, I will argue that the case study of the 1948 Palestine War is also uniquely positioned to contribute to key challenged in the broader political science literature on violence against civilians.

What explains the dynamic of violence against civilians in armed conflict? Scholars of comparative politics have been studying political violence and political behaviour in war for decades. Research examined both lethal (Stanton 2013; Polo and Gleditsch 2016) and nonlethal violence (Steele 2017; Lichtenheld 2020) as well as both combatant and civilian behavior (Schubiger 2021). Particular effort has been dedicated to trying to understand the

reasons some experience violence while others do not. This is highly important in practice because it allows us to better understand the bloodiest social phenomenon that haunts modern world politics.

Firstly, evidence from the case study contributed to theoretical debate over violence in war. Canonical approaches focused on variation between states and macrolevel[3] settings as the key explanation (Horowitz 1985; Fearon and Laitin 2003; Collier 2004). Influential later scholarship focused on subnational variation and looked at microlevel conflict dynamics to explain the logic of violence (Kalyvas 1999; Sambanis 2004; Kalyvas 2006). The divide between these approaches is stark, and stagnates the field; thus, there has been an increasing call for a theory that would integrate the two (Balcells and Justino 2014; Balcells and Stanton 2021).

The source of this theoretical problem is, in part, empirical constraints: much of the field, whatever the paradigm, is concerned with inter-case comparison, while intra-case studies are limited. Macrolevel studies focus on the variation between states or large regions; microlevel studies focus on the variation between smaller units within a state[4]. The most successful attempts at bridging the micro-macro gap have been by how both the micro and macro level develop over time (Balcells 2010). This is because doing so introduces dynamism to the researcher's perspective, allowing change in the unit of analysis across time. Only in this way we can observe the effect of on level of analysis on the other, exploring the endogenous dynamics of the conflict. Such endogenous wartime dynamics often remain a "black box" in the literature, and thus warrant more significant exploration.

The 1948 Palestine War serves as an ideal case study to contribute to this effort. This is because both the micro and macro levels in the war are particularly dynamic. The national setting developed from a civil war into an interstate conflict.[5] The strategic outlook in the

[3]A more lengthy and detailed discussion of the definition of the macro and microlevel in war, as well as the problem of the divide in between them and the approaches to conceptualize the relationship between them is situated in the next chapter.

[4]This is a brief characterization of the literature; the Background chapter provides a more detailed explanation of the definition used in the dissertation of the macro and micro levels.

[5]Discussion of the conceptualization of the war as a comparative case study is developed in the next

war changed drastically from a starting point in which Jewish forces were in a minority to them prevailing convincingly. At the village-level, there is significant and changing variation in allegiances, actions, behavior, battlefield situation, and access to information.

Furthermore, the case study also helps advance the field empirically due to the unique opportunities it presents. The war is heavily documented and is rich in data sources, making it a great case study empirically. The British colonial rule meticulously kept record of the situation in Palestine before the war and the Israeli state collected granular data on the situation after it. This rare continuation of relatively high-level record-keeping means that we can learn a lot about the war just by triangulating these two sources of information on the state of villages before and after it. The extensive historical research and documentation by historical scholars of the events of the war, and particularly violence and displacement in it, complement this and make it an excellent case study that can help alleviate the data constraints that has constrained research on violence in civil war in the past.

In this dissertation, across three papers, I models such micro-macro interaction, focusing on how civilians cope with uncertainty and change their behaviour in interdependent ways. In my overarching framework, exogenous microlevel events spiral up to a macrolevel breaking point; this strategic shift then leads to a change in the local logics of violence that were common previously. In each of the three papers, I test my expectations with advanced statistical and causal analysis of fine-grained, original, panel data from the Palestinian Exodus in the 1948 Palestine War, and demonstrate the mechanism with integrated qualitative illustrations.

The papers present an interactive theory of violence, that explores endogenous dynamics of conflict that have not received enough previous attention. This is because while all studies focus on situations that are situated by macrolevel strategic setting, only few examine changes to it - as discussed in the background chapter. My argument is that both combatants and civilians shape the war, and that their behavior is guided by an attempt to limit the

chapter.

uncertainty that is prevalent in war by gathering as much information as possible, often using different signals and heuristics. Each paper looks at a different observable type of civilian victimization. All the papers utilize a dataset of Palestinian villages in the war built based on matched pre-war data from the British 1945 Village Survey, wartime data gathered from the work of Khalidi et al. (2006), Abu Sittat (2010), and Morris (2004), and post war data from the Israeli Central Bureau of Statistics. The papers aim at causal inference and, in the case of the second and third paper, use mixed methods, also integrating qualitative illustrations. The first paper uses formal modelling and the second paper uses agent-based computer modelling to illustrate the theoretical framework.

The first paper looks at flight, when civilian communities preemptively flee to avoid violence. In it I look at how microlevel behavior is interdependent, and how microlevel events impact each other because they are observed by, and affect the strategic calculation of, microlevel actors. These dynamics then aggregate into changes in the macrolevel. I ask what explains the flight of civilians in civil war? What is the effect of news about violence on flight? How does the flight of one community affects the flight of its neighbour? To answer these, I develop a collective action theory of flight in civil war, arguing that civilians who struggle with uncertainty when making the decision to flee turn to rumour networks and social mimicking. I use a natural experiment based on random variation in over-the-air radio reception to explore how exposure to news about the Deir Yassin massacre in the 1948 Palestine War impacted Palestinian decisions to flee. The study eliminates the danger of salient atrocities in war, and explains the social process that leads to flight in war.

In the second and third papers I look at how macrolevel shifts and exogenous shocks change microlevel behavior, since the new information they provide change these actors' outlook. In particular, in the second paper I look at inter-ethnic collaboration and its impact on violent expulsion or forced displacement, depending on exogenous macrolevel events. I ask what determines whether the relationship between neighbouring communities will be violent or cooperative after war breaks out? Under what conditions does local inter-ethnic

collaboration to resist violence emerge and survives? I present a formal model explaining the behaviour of communal leaders, arguing that they face uncertainty over the probability of the rival taking control, which is what determines the character of intercommunal relations. They thus turn to macrolevel heuristics—signals from the interstate, state, and substate systems—to estimate this probability and guide their decision-making. I support this theory with data on such inter-ethnic cooperation pacts, extensive robustness tests, and two qualitative case studies selected based on the statistical analysis. The study furthers our understanding of the source of, and limits to, local peacebuilding, exposing a phenomenon of strategic tentative wartime cooperation.

The third paper's focus is massacres—the killing of multiple civilians during village occupation. Why are some civilian communities in armed conflict targeted with mass killings while others remain unharmed? I argue that who is killed at the microlevel depends on the changing macrolevel setting: when armed forces are in a defensive mood, fearing an invasion, they will target communities that cooperated with enemy forces—to deter such cooperation by others; but when armed forces are in an offensive mood, attempting to occupy territory, they will target communities that cooperated with their own group. I use data on civilian killings in the war and a series of case studies to support this theory. The paper adds nuance to our understanding on how civilian allegiances determine whether they are targeted and how combatant response to different civilian behaviors changes across the war.

Before the three papers, the next chapter in a background chapter, which uses the literature to develop the ideas presented here and set the foundation for the three papers. I will first summarize and engage with key studies from the literature on violence against civilians, identifying challenges and gaps and developing a conceptual framework to understand the different types of civilian victimisation I focus on, as well as the difference and relationships between them. I then explain what I see as the problem of the micro-macro divide, discuss the different approaches to conceptualise both and my preferred definitions, look at previous attempts to solve the problem, discuss methodological challenges, and discuss different

mechanisms in which the two levels affect each other. I then look more closely at the case study, outlining the key historical background, timeline of key events, the significant characteristics of the war, and how the case study fits in a comparative framework within the wider literature on civil wars. Finally, I move to discuss my approach. I first look at my theoretical assumptions, the similarities and ties between the three papers, and how they all fit together. I then discuss more extensively the commonalities in the process of data collection and data set building, as well as the empirical opportunities, based on previous empirical research on the war. The background chapter is followed by the three stand-alone papers, and a conclusion chapter details the general implications of the research.

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2 Background

2.1 Introduction

As an article-based dissertation, the three papers below all engage with the literature on their own. However, there are multiple themes that unite all three papers, and they all start from a similar approach. This chapter aims to reflect on and discuss the conceptual, theoretical, and empirical foundation that the three papers share.

I will first discuss the literature on violence against civilians, with the aim of clarifying the conceptualisations used in the papers. I will then discuss the levels of analysis and connections between them in civil war, since bridging them is a consistent aim of every paper. I will discuss the meaning of these, prior approaches to bridge the micro and macro levels in understanding civil war violence, and my (meta)theoretical approach when it comes to this problem. I will then discuss the case study, expanding on the historical background more widely then I could in every paper and situating it in a comparative perspective. Following that I will briefly explain my empirical approach, discussing prior research on the case study in the social sciences and my data collection and analysis strategies. Finally, I will present the three papers and how they all fit together.

It is important to note, however, that every paper also presents the literature, concepts, theory, historical background, and information on methods that are most relevant to its focus. The aim of this chapter is just to take a step back and discuss these as they relate to the project as a whole.

2.2 Violence Against Civilians

Violence in civil war can have many forms, from conventional battles to aerial bombings, from terror tactics to guerilla warfare. I focus on violence against civilians, since it has major importance public policy on conflict and security, has been the most salient part of the legacy of the 1948 war, and remains relatively less studied compared to studies on organized militaries and insurgencies and the interaction between them. Due as well to the

need to further limit the scope of the enquiry, I focus only on direct violence against civilians. This excludes violence that only involves governments, rebels or both of these, and excludes indirect violence that uses heavy weapons.

2.2.1 Defining and Demarcating Victimisation

Direct violence against of civilians was characterized as repertoires or forms of violence inflicted by armed groups in collaboration with civilians using small arms (Balcells and Stanton 2021). This is done in areas under the armed groups' control, and is distinguished from indirect violence which is unilateral attacks in areas outside the control of the group (Balcells 2010). The key part in this definition is *in collaboration with civilians*. While it is not necessary that violence against civilians would involve combatant-civilian coordination, it is common. Thus, across the three papers, I emphasize the centrality of civilian agency. The starting point of every paper is that individuals that find themselves in the midst of an armed conflict face significant *strategic uncertainty*. They thus turn to heuristics from both the micro and the macro level to guide their decision-making, and thus determine their behaviour. This approach applies to combatants, but also to civilians, which I argue can have a significant influence. This follows an emerging literature on civilian agency in war—as Schubiger (2021) argued, "influential patterns of wartime civilian agency remain strikingly unexplored" (pp. 1383).

Another popular distinction in studying violence against civilians is between indiscriminate and selective violence (Kalyvas 2006). The key difference between these is that indiscriminate violence targets individuals based on their group membership, not any action; selective violence targets civilians based personalised information on their behavior (Koc-Menard 2006; Downes 2007). This conceptual distinction continues to be used today (Schutte 2017; Martinez 2023). However it was also widely critiqued, with new frameworks allowing for more nuance.

Most importantly for my work, Souleimanov and Siroky (2016) have expanded on definitions of indiscriminate violence, further distinguishing it between random and retributive

violence. They argue against the perception of all indiscriminate violence as always purely random. While bombing and shelling of villages without regard for prior activity would be random, attacks against civilians based on the perceived guilt of their village is retributive. This latter type of violence is indiscriminate, as far as classical definitions are concerned, because it is not based on any individual guilt. However, this violence is also still highly targeted and is based on the actions of their group.

Furthermore, there is a long tradition of differentiating between two forms of violence against civilians—lethal (Stanton 2013; Polo and Gleditsch 2016) and nonlethal violence (Steele 2017; Lichtenheld 2020). Lethal violence has been the traditional focus of the field, and includes the killing of civilians both directly and indirectly through individual or mass killings or bombings. Non-lethal violence is all other forms of violence that do not involve death; the most studies form has been displacement, but more recently attention has been given to sexual violence in civil war (Nordas and Cohen 2021).

2.2.2 Conceptual Framework

In this dissertation, the three papers all focus on distinct forms of violence against civilians, and more broadly civilian victimisation. It is important to note that they do not cover all forms of civilian victimisation—indeed, new historical research has uncovered significant instances of looting and rape in the 1948 war (Raz 2020) which are not systematically examined here due to data constraints. Furthermore, throughout the dissertation I use variation in these types of victimisation, but that is not to say that those not exposed to some or any of these types were not at all victimised; the 1948 war has been all-encompassing and likely affected in one way or the other all civilians in the war-torn territories.

The type of violence I focus on is direct and retributive violence, both lethal and non-lethal. The violence is direct because the has been very little use of aerial or artillery bombardment in the war, and violence was almost always carried out by the combatants in close proximity to the civilians. The violence was retributive, because for the most part individuals affected were selected randomly, but I will argue that these were targeted based

on association with specific villages and their previous behaviors and actions.

While focusing on nonlethal violence, I focus on two forms of displacement: *forced displacement* or forced migration, the violent and intentional expulsion of civilians that often involves coerced transportation; and *flight*, a tactic of preemptive evacuation that civilians can take before combatants have reached their village.

Flight is the focus of the first paper, first as the dependent variable and then as the independent variable—as I will argue that it is self-reinforcing. I follow Arnon et al. (2023) definition: they call it "preemptive evacuation" and define it as "a specific manifestation of forced displacement, in which whole communities leave their homes before belligerents attempt to seize control in their local area" (p. 52). Thus, I see it as a village or community-level behavior in which these communities uproot before ever being forced to do so by combatants.

In contrast, in the second paper I focus on explaining displacement, in its form as the violent expulsion of civilian communities directly by combatants. This occurs among those that did not flee before combatants took control of their village, and is done forcibly and with the threat and use of violence. In particular, I follow the Lichtenheld (2020) definition of displacement as "the deliberate, systematic, and coercive movement of noncombatants by armed groups" (p. 256). He further distinguishes between three strategies of displacement—cleansing, depopulation, and relocation. The displacement I study is just of the first form: "the deliberate expulsion of members of a political, ethnic, or social group" (p. 256). It is targeted at specific groups and is meant to cause the permanent removal of this group outwards to areas outside combatant control.

In lethal violence, I look at massacres that capture two forms in this dissertation: small-scale *killing of civilians*, in which multiple civilians are directly murdered by combatants; or large-scale *mass atrocities*, that are much more salient, and include the brutal targeting of a massive amount of civilians. Mass atrocities are most importantly distinguished by their salience: they include extreme brutality, notable destruction, or scale that encompasses

nearly the totality of the targeted population. Massacres that involve the killings of a few civilians are more common but less notable, and so have a smaller impact.

I study mass atrocities in the first paper, as an independent variable. I study civilian killings as the main dependent variable in the third paper. While related, I treat the two phenomena as separate, due to difference in tactic and scale. Thus, the effect of the mass atrocity studied in the first paper (on civilian flight) may, speculatively, also be found as a result of the killings studied in the third paper; but salience is the important mechanism in enabling this affect, and so the killings would likely have a much more negligible impact.

Furthermore, I believe that the determinants of both phenomenon arise from different sources of agency. I see lethal violence as mostly the *murder* of non-combatants and mass killings that occur when armed groups take over a community. I posit that to explain this form of violence we need to look at combatant decision-making and how it is shaped by both micro- and macro- level parameters. As I show in the third paper, the decision over civilian killings was at the hand of armed group commanders, under the direction of the national leadership—and was thus shaped by macrolevel shifts. In contrast, as I explain in the first paper, the mass atrocity contradicted regional and national strategies, and was executed by the combatants as a local decision.

Furthermore, the sources of agency in the case of nonlethal violence are different. Flight is essentially decided upon by the fleeing civilians. However, forced displacement is more complicated, since the civilians are forced to flee by the combatants. As argued in the formal model in the Appendix of the second paper, I argue that this form of violence requires higher levels of local civilian participation among the *combatants' ingroup* because a continuous presence at the local level is essential. This is because local ingroup civilian leaders are present locally much before combatants arrive, and thus have better information on the village that will be displaced; and they are present locally much after combatants leave, and thus are crucial at making the displacement permanent. Thus, they have a significant influence on decisions over the displacement of the enemy, and a logic rooted in civilian

decision making is needed to explain outcomes of displacement.

In sum, these distinctions matter because variation in them is explained differently. The purpose of this dissertation is to explain why some communities are targeted with violence while others are not; this includes why some are targeted with forced displacement, mass killings, both—or neither. Explaining these variations requires tracing the logic of targeting and source of agency in which the decisions over targeting is made, which is different to each of these forms of violence.

2.3 Levels of Analysis

Each paper in the dissertation takes on the task of developing a theoretical framework to explain in detail the relationship it studies. However, there are common themes in the theoretical approach of every paper. Moreover, in addition to contributing to the specific literature that every paper engages, all papers attempt to build bridges between macrolevel and microlevel approaches to explain violence against civilians in war. This overarching contribution concerns a broader, higher-level theoretical issue than the relationships the papers study; thus, the foundation for this approach and the meta-theoretical background for the papers is reflected upon here.

2.3.1 The Micro/Macro Problem

Previous research on violence against civilians has been rich, rigorous, and highly promising. However, paradigmatic explanations can be improved in a number of ways. Firstly, classic explanations for violence in political science focused on the macro aspects of civil war; these were overtaken by microlevel approaches that focused on individual behaviour. New theoretical links between these are crucial to promoting the field further. Furthermore, existing scholarship consists of mainly static explanations—explaining why violence will be quantitatively and qualitatively different across spaces, but not explaining how or why the character and logic of violence will change over time during the war.

Macrolevel research explained violence by looking at determinants at the international

or national level, showing the varying state-level settings or macrolevel contexts shape the incentives of combatants to engage in violence (Horowitz 1985; Fearon and Laitin 2003; Collier 2004; Kalyvas and Balcells 2010; Lichtenheld 2020). These approaches are grounded in international relations, and rarely engage with the microlevel dynamics of violence.

In contrast, the microlevel approaches emerged later, stemming from comparative politics. Prominent early critics of the macrolevel explanations include Sambanis (2004), who showed macrolevel approaches lack causal mechanisms and do not reflect reality on the ground; and Kalyvas (1999) that emphasized the microlevel foundations of violence. These approaches emphasize microlevel causes, arguing that violence is often privatized by individuals (Kalyvas 2006) and is the result of hyper-local contention (Steele 2017; Balcells and Kalyvas 2014). These approaches focus on subnational variations, arguing for a fixed logic for the emergence of violence based on differences between localities and individuals before the war and at its beginning.

This divide hinders progress in the field. Balcells and Stanton (2021) made a similar point in a recent review: "viewing research in this way (e.g. divided between micro and macro approaches) may lead scholars to ignore or put aside theories from the "other" approach. Yet, doing so prevents the development of theoretical insights about the ways in which factors at different levels of analysis interact to produce particular patterns of wartime violence." (p. 46). In other words, both macro and micro level theories have a strong explanatory power; but the empirical reality is that these interact, and ignoring this interaction leads to a significant gap in our knowledge. As Balcells and Justino (2014) argue, "establishing a theoretical link between macrolevel political processes and local conflict dynamics is crucial for gaining a better understanding of key outcomes" (p. 1346).

2.3.2 Potential Solutions

The development of such theoretical links in the literature has been limited. Research is too often paradigmatic, disregarding explanations that relate to other approaches; this often follows disciplinary lines, with microlevel influences from sociology and macrolevel influence

from economics dividing the field in political science. However, there has been multiple notable studies that focused on building bridges or links between the levels of analysis, which I will survey here.

Balcells (2010) is an early notable exception, and has been a persistent advocate for building bridges between approaches. In her 2010 study, she mostly takes a microlevel approach in that she explains variation in violence against civilians by looking at pre-war electoral competition in different municipalities in Spain; but she makes the important observation that when looking at how this logic evolves over time, this microlevel logic can not explain violence by itself anymore. She notes the importance of endogenous change in the war, writing that "following the first round of violence, war-related factors gain explanatory relevance" (p. 291) and concludes that "the results in this paper are supportive of the idea that the insight of both the first and second generation of scholars of violence should be integrated into a single theoretical framework (...) Indeed, the macro-cleavages and political processes leading to a civil war are unlikely to be detached from the reality that people live at the local level, and to have an impact on levels of violence" (p. 308).

Balcells and Justino (2014) later convened a special issue titled "Bridging Micro and Macro Approaches on Civil Wars and Political Violence: Issues, Challenges, and the Way Forward", which has been the source of many innovations. In it, Arjona (2014) argues that mesolevel wartime institutions stemming from local interactions lead to macrolevel outcomes; Balcells and Kalyvas (2014) argue that microlevel tactics used by rebels affect macrolevel outcomes in the war; McLauchlin (2014) connects a classic macrolevel economic variable, rough terrain, to microlevel variation in combatant desertion; and a series of articles offer methodological innovations to studying such links (Gupte et al. 2014; Sabates-Wheeler and Verwimp 2014; Gutiérrez-Romero 2014). These contributions were groundbreaking, though often came down to explaining variables that interest the macrolevel approach as the result of purely microlevel dynamics or vice versa; they did not describe reciprocal processes in which wartime outcomes can emerge as a result of both microlevel dynamics and macrolevel

shifts jointly.

Balcells and Steele (2016) offer a major methodological contribution. They recognize that progress is stemmed by either just observing variation in local units within one case study or just observing variation between national units without attention to local dynamics. Instead, they choose to combine their case study expertise in order to study local variation at the civil wars in both Colombia and Spain. This allows for some variation in the macrolevel, simultaneously with variation in the microlevel. They argue that this is highly innovative: "The article is the first comparison to our knowledge of the sub-national dynamics of displacement within two different civil wars" (p. 15). However, they use this method to "show that the microfoundations of displacement are similar across types" (ibid.). Thus, the variation in the macrolevel is not used to explain changes to the microlevel logic; it is merely a robustness test in order to disregard macrolevel approaches—not incorporate them in the explanation. Furthermore, the variation in the macrolevel is limited, and the methodological model is hard to scale since lack of rich contextual microlevel data from many different macrolevel settings.

Two canonical attempts to develop generalizable mechanisms for macro-micro interaction are those of Kalyvas and Balcells (2010) and Schelling (1971). Kalyvas and Balcells connect the end of the cold war, an exogenous shock to international system that is strikingly macrolevel, to changes in how conflicts are thought internally. Their argument is that such exogenous processes in the macrolevel setting then shift power dynamics, making local actors change their strategy. This model of macro-micro impact is useful because it easily replicates to many cases.

Similarly, Schelling (1971) has been highly influential because of his simple model for the opposite process: explaining how microlevel dynamics affect the macrolevel setting. He argues that microlevel behaviors are interdependent, can be self-sustaining, and are susceptible to lead to tipping points; their aggregation leads to macrolevel outcomes. His approach started developing from a pioneering dynamic explanation of segregation and were later de-

veloped into his book *Micromotives and Macrobehavior* (Schelling 1978), which generalizes this approach in what led to the birth of agent based models.

2.3.3 Theoretical Approach

A discussion of the approach in this dissertation has to start with defining the microlevel and macrolevel, following on the discussion of the literature above. Building on the approach in sociology, I see the actors at the microlevel as individuals and their immediate surroundings. By "immediate surroundings" I includes families, small local communities, and small units of armed groups, on the condition that they can be said to be mostly acting in unison (and thus are the smallest unit with explanatory relevance). The behavior of these individual, the events they cause, and the dynamics of these individuals' behavior is what constituted the microlevel. The most important characteristic of the microlevel is that these behaviors and events can be traced to the decision of an individual; this decision can be interdependent and influenced by others, but one person can create microlevel events.

In contrast, the macrolevel concerns large regions, usually whole states or large parts of them, and sometimes the interstate system or world politics. I characterise this level as a "setting", or synonymously as a background or landscape, because it is a more static and pre-determined variable. However, it also goes through processes that create shifts. The macrolevel setting is the result of complex processes and shifts to it can not usually be traced down to single individual decisions, since they are the result of many different sources and influences. This means that the macroelvel is clearly demarcated from the microlevel.

Some examples for what constitutes the microlevel dynamics are battlefield outcomes; violent events; the decision of local leaders or small communities on how to respond to war; the interaction between individuals or between neighbouring small groups; or the behavior of small armed units. Some examples for what constitutes the macrolevel setting are a country's economic success or political system; national peace agreements or declarations of war; the decisions of national states on how to respond to a conflict in another state; or the success or failure of a national group in a conflict.

I follow Schelling in seeing the macrolevel as the aggregation of many microlevel behaviors. The first paper expands on an example of this with an agent based model and a natural experiment allowing me to isolate a self-reinforcing dynamic of microlevel events, which aggregate to affect the macrolevel.

However, I do not see the macrolevel as just the sum of the microlevel. I argue in the second and third paper that the macrolevel setting can affect and matters a lot to microlevel decision making, and that shifts in the macrolevel lead to changes in the patterns of behavior at the microlevel. Important to this argument is the assertion that despite the Schelling-adjacent starting point, the macrolevel is more than just a bunch of microlevel dynamics. Macrolevel shifts have importance beyond the microlevel dynamics that lead to them: the whole is larger than the sum of its parts. This is because once microlevel behavior aggregate beyond a tipping point, leading to a macrolevel shift, that shift is what shapes wide-ranging patterns in microlevel behaviors in a way that singular microlevel events could not have.

This is important in resolving two possible tensions. First, this degree of separation allows for the macrolevel shift to be exogenous to at least some microlevel variation. It explains how arguments in the style of Kalyvas and Balcells (2010) on exogenous macrolevel shocks are possible. Most significantly, this means that the effect of the macrolevel shifts on microlevel dynamics is not just a reflection of the relationship between microlevel events, and that the macrolevel is a substantive part of the equation on its own.

Finally, my theoretical approach relies on innovating the method that previous bridge-building studies used in order to understand endogenous conflict dynamics, which Balcells (2010) regarded as a black box. These wartime endogenous dynamics remain overlooked and unexplored by the literature, with insufficient attention given to them and no theoretical framework convincingly explaining them.

I posit that this stems from the method of enquiry. Micro and macro approaches are not only non-interactive, they are also static. An interaction between the micro and macro levels would mean that they influence each other during the war, and thus change; a theoretical

bridge between the approaches necessarily and inherently needs to look at the levels with a dynamic lens. Macro approaches compare screenshots of different conflicts and the resulting variation, but fail to recognize and explain changes at the macrolevel setting across time; microlevel approaches explain variation in violence with systematic differences between localities in one conflict, but fail to recognize that the logic that connects these variations may change across the war.

I would like to explore these wartime factors and open the black box of endogenous conflict dynamics. In order to do so, I would move beyond the static approach of previous studies. These looked at between-case variation, at either the micro or macro levels, whether the case is a state or a municipality. In contrast, I focus on within-case variation across time. This approach is helpful because it allows for the macrolevel setting to develop, and for the logic underlining microlevel variation to change. By allowing these to be dynamic, we also allow them to be interactive—macrolevel changes can be explained by microlevel dynamics, and vice versa.

The first paper analyzes how microlevel dynamics effect each other and add up to a macrolevel, national, shift; the second paper looks at signals from the macrolevel, both regional, national and international, and how they shape microlevel dynamics; and the third paper looks again at shifts at the macrolevel strategy and how they shape microlevel events.

The case study that I use to explore changes across time and wartime dynamics is the 1948 Palestine War, and I explain its particularities and advantages in the next section. I will then describe my empirical approach. Finally, I'll outline how the three papers in the dissertation come together to offer the interactive and dynamic theoretical framework that is needed, before moving on to describe each of the papers in detail.

2.4 The 1948 Palestine War

All three papers focus on the case study of the 1948 Palestine War and violence in it. They all include sections that describe the case study and particular historical detail that is required to understand the paper. However, due to constraints on word limits, they do not go into

detail on all major events in the war. This section will attempt to provide a summary of the essential context required to understand the three studies. It is important to note that the historical literature on the conflict is incredibly rich, and that this is just a minimal discussion of the key facts. I will first describe the background to, foundation, and trigger of the war. I will then outline key wartime events. I will conclude with reflections on situation the case study in a comparative perspective and on the substantive importance of the case study.

2.4.1 Essential Background

Jewish and Arab groups have resided in historic Palestine for a centuries with minimal tensions. However, in the late nineteenth century immigration to the territory by European Jews started increasing rapidly. This was first done in response to antisemitism and repression of the Jewish minorities in Europe, but later picked up as part of an organised goal of the Zionist movement to build a Jewish national home in the territory (Shilo 1994). Following the first world war, the territory was taken away from its previous Ottoman rulers and given by a special UN mandate to the United Kingdom. Amid rising immigration, the relationship between the ethnic communities in Palestine worsened. From initial widespread cooperation, animosity grew between the groups as the national movements of both emerged and clashed (Smith 2007), a process which was also fuelled by increasing income inequality (Panza and Swee 2023).

Tensions finally peaked with widespread violence in an open communal conflict in what became the 1936-1939 Arab Revolt in Palestine. This included a series of bloody clashes between the ethnic groups and between them and the British forces. The British colonial rule successfully repressed the rebellion using collective punishments and force (Hughes 2019). However, the rebellion created a foundation of armed organisation and nationalist mobilisation among the Palestinian population (Kelly 2017).

The British Mandate initially tried to restrict Jewish immigration in an attempt to appease Palestinian leadership, but following the Jewish Holocaust in World War Two a

massive wave of migration started (Ofer 1990). It is hard to overstate the impact of the horrors of the holocaust on its survivors, and how this affected the mindset of the Jewish leadership later on in the war. The apparent need for a stable, independent Jewish national home, and thus an ethnically homogeneous Jewish home, has arguably became salient due to the experience of the holocaust. Similarly, an all-or-nothing sense of totality due to the survival instincts that the Holocaust created, and their experience of unprecedented atrocities and powerlessness in facing them, has arguably shaped their conduct in the war (Tzahor 1988).

Amid rising tensions locally and international pressure in the aftermath of WW2, a United Nations committee convened to discuss the partition of the territory to two nation states. This committee drew up maps as a proposal on how to divide the land. However, this process was done with minimal British cooperation, and so the committee lacked up-to-date data on the spatial dispersion of Jewish and Palestinian settlements (Biger 2021). The committee announced the partition plan on the 29th of November 1947, with British withdrawal set for the 14th of May 1948. Immediately after the announcement, hostilities broke out between the ethnic groups and their armed wings. Thus, the day marks the start of the 1948 Palestine War, which lasted until early 1949.

2.4.2 Key Wartime Events

The 1948 Palestine War can be divided to two parts. The first is called by historians "the civil war" and lasted from November 1947 to May 1948. During this period, Britain continued to control the territory but increasingly lost control as it was gradually withdrawing and the different Jewish and Palestinian armed groups grew more brazen. The British forced intervened at times in the violence, but towards the end of this period battles were held openly, as Jewish forces executed "Plan Daled" to take over territory (Khalidi 1988).

The official termination of the British Mandate on the 14th of May marked a turning point in the conflict. Immediately with the end of British sovereignty over the territory, the Jewish leadership declared independence in the lands they control as the new State of Israel.

In tandem, numerous neighbouring Arab states invaded the territory, advancing from all directions in an attempt to "rescue" the Palestinian forces from defeat. However, the newly formed Israeli Defence Forces, which united the different Jewish armed groups, managed to stop the invasion and occupy large swaths of land.

Amid both phases, hundreds of thousands of Palestinians fled or were displaced. This was accompanies with sometimes brutal occupation of Palestinian villages by Jewish and Israeli forces, including looting, rape, and massacre of civilians.

More granularly, the armed conflict could be separated to six main stages. From November 1947 to April 1948 the fighting was limited to small groups armed with light weaponry, and focused on control of key urban centres and transport links. From April until mid-May, the Jewish forces moved from a mostly defensive focus to a united, coordinated attack centred on capturing the lands promised to them in the Partition Plan. They were very successful, defeating Arab forces, and were aided by mass flight of Palestinian civilians. From mid-May to mid-June, the invading Arab armies successfully advanced inwards, with Israeli counter attacks mostly failing. June and July were mostly quiet due to a ceasefire, but from mid-July Israeli forces successfully attacked the different Arab and Palestinian armed groups and occupied more large swaths of land, including areas previously promised to the Palestinian state in the Partition Plan. From July and for the rest of the war, the fighting was less constant, and was mostly limited to short bursts of territorial occupation by the Israeli forces in concentrated regional operations, which defeated remaining armed resistance and occupied much of the remaining available lands. This was accompanied with diplomatic efforts that lead to a permanent ceasefire being signed in July 1949, though very little fighting happened after January that year.

2.4.3 Comparative Framework

There is a conventional wisdom by some social scientist that Israel is a unique case study that can not be studied in a comparative perspective. This was opposed by Barnett (1996), which argued that the Israeli case study can be used to reconsider existing social science

frameworks, and that models from other regions can be used to re-examine Israeli history.

This very much stands true in the case of the 1948 Palestine War. Across the three papers I detail the specific scope conditions to the findings based on each theoretical framework in a way that varies between papers. I also make a point of detailing comparable case studies that exhibit the same dynamic that each paper focuses on. However, more broadly, it is important to situate the whole case study within the existing literature.

The Uppsala Conflict Data Program (UCDP) has developed generalisable definitions that much of the field uses (Sundberg et al. 2012). In particular, the two parts of the 1948 Palestine War fit in two different categories within their framework. The first part, from the announcement of the partition plan to the withdrawal of British Mandate, can be described as a non-state armed conflict—which is defined as "use of armed force between two organized armed groups, neither of which is the government of a state, which results in at least 25 battle-related deaths in a year" (p. 352). In particular, it can be classed as a non-state armed conflict exhibiting what they call organisational level 3, which "includes groups that define themselves along identity lines, be it ethnic, clan, religious, national, or tribal identities" (p. 353). This is similar to a communal conflict, with varying level of communal violence.

In the second part of the war, from May 1948, the Jewish groups united to form an independent state, with a government and control of parts of the capital, and received some international recognition. Thus, one of the parties in the conflict became a government of the state, according to the UCDP definition of a government. This means that the second part of the war can be better defined as a state-based conflict. At the same time, forces from neighbouring Arab states, including Egypt, Jordan, Iraq, Syria, and Lebanon, joined the war. Thus, it can be particularly defined as an internationalized intrastate war—an armed conflict between a government and a non-government party where one or more of the sides receives troop support from other governments that actively participate in the conflict.

Therefore, the armed conflict does adhere to traditional definitions. The shift in it

between categories is notable, but is not incomparable ore unique—wars are fluid and such changes are likely. Indeed, this shift is helpful since it shows that the macrolevel setting has been volatile throughout the war, and I will argue that this lead to changes to patterns in microlevel behavior.

One type of armed conflicts that the 1948 Palestine War closely reassembles is post colonial wars. These occur after the withdrawal of colonial rule creates a gap in sovereignty and requires local state building. This state building then leads to the ethnicisation of political identities, and then escalate to rebellions or wars (Wimmer 1997). Henderson and Singer (2000) count 53 such wars between 1946 and 1992. A common occurrence in these conflicts is ethnic cleanings, which the violence against Palestinians in 1948 and their exodus is an example of. These have long been studied by social scientists (Mann 2005). Lichtenheld (2020) reveals that ethnic cleanings occurred in 21% of all civil wars from 1945 to 2008, which is over 30 civil wars.

2.4.4 Salience and Importance of the Case Study

The 1948 war is theoretically interesting because while it is a classic example of two distinct and cleavaged ethnic groups fighting over territory, external developments like the UN partition plan, invasion of Arab armies, and waves of Jewish migration have added complexity and created interesting variations. At the beginning of the war, a common expectation was that the Jewish community would be wiped out quickly and completely; by the end of it, that is what happened in many ways to the Palestinian community. This means that the macrolevel setting changed throughout the war, and so it is an ideal case to use in order to explain the origin of such changes, and observe how shifting macrolevel settings change the logic of violence at the microlevel.

Moreover, the war is heavily documented and is rich in data sources, making it a great case study empirically. The British colonial rule meticulously kept record of the situation in Palestine before the war and the Israeli state collected granular data on the situation after it. This rare continuation of relatively high-level record-keeping means that we can

learn a lot about the war just by triangulating these two sources of information on the state of villages before and after it. The extensive historical research and documentation by historical scholars of the events of the war, and particularly violence and displacement in it, complement this and make it an excellent case study that can help alleviate the data constraints that has constrained research on violence in civil war in the past.

Finally, and most importantly, research on this case study can have a significant impact on both contemporary debates and discourse around Israel/Palestine, and on policy in practice—in a conflict that has received widespread attention and is seen as central to world politics. Efforts to solve the conflict and proposals for its solution constantly focus on the 1967 war and its aftermath, debating how to divide the land acquired then and alleviate the cleavages it created; in contrast, peace negotiations have in practice failed in large part due to disagreements over the handling of refugees from the 1948 war (Barak 2005), and the legacies of the war are a key determinant of hawkishness among Israeli citizens (Haran Diman and Miodownik 2023b). The nature of violence in the war is under considerable public contention between and within the national groups and a common perception in Israeli discourse denies that any widespread violence took place in the war, arguing that the "Nakba" is a "historical lie and propaganda" (Jamal and Bosool 2017). As Jamal (2021) writes, "the Nakba is a prominent "present absentee" in the Israeli public sphere and consciousness. Its presence is suppressed, and the best way to illustrate this argument is by looking at how the Nakba is hidden" (p. 1). Even serious figures contend that if the violence against civilians in the war did indeed happen, Israel could not be blamed for it because it was not premeditated or strategic; the mass murders were a natural by-product of the war and the displacement a voluntary decision (Jangid 2012). Critical scholars extensively argued that the violence was strategic and part of an ethnic cleansing campaign, with the displacement being violently caused and enforced (Morris 2004; Pappé 2007). But the vast historiographical evidence for this did not manage to sway public opinion in Israel, with refusal to recognize the events of the war still plaguing any peace negotiations (Lustick 2006) and moving Israelis to oppose

any peace efforts (Haran Diman and Miodownik 2023a).

Despite this heated historiographical debate over the war, its key importance for the protracted conflict that ensued, and the theoretical and empirical opportunities it encompasses for scholars, until recently it has not received attention from any political scientists or was subject to systematic and high quality social scientific research (recent exceptions are surveyed below). This can be attributed to a number of causes. Foreign scholars external to the area face a high barrier to researching it, which is particularly high for work on historical events and includes language learning, achieving area expertise, learning about local nuances and social norms, and learning about available resources. Palestinian scholars are highly motivated to study the conflict but are also highly marginalised and disadvantaged; do not have access to high-quality education; would face difficulties in achieving access to Israeli sources; are repressed and punished for political activism, which research on the Palestinian Exodus can be seen as; and could be discredited as biased if they point at violence carried out by Jewish forces against Palestinians in the war. Thus, the most well-positioned to research the violence in the 1948 war are Israeli social scientists. However, independent research on the war in Israel is rare because the events are the war is such a taboo subject (Jamal 2021); junior academics who critically researched violence in it have faced harsh backlash and career-ending public scrutiny (Kisler 2022) while senior academics who did so were forced to leave the country in favour of posts in other countries, citing concerns on academic freedom (Jangid 2012).

The combination of the advantages of the case study, to both scholarly inquiry and policy debate, and the lack of research on it in political science, makes centring the wider project around it worthwhile. In parallel, for each of the papers I propose it fits in different ways, both in theoretical terms as a typical, hard, or easy case or empirically as a case study that allows the analysis of the phenomena and mechanism that every paper focuses on. The case of the Palestinian Exodus has many theoretical and empirical benefits but has been overlooked, and this dissertation will help alleviate this, and it will have important

implications for public discourse and peacemaking in Israel-Palestine.

2.5 Empirical Approach

Mostly within the last few years, there have been increased interest in the 1948 Palestine War as a case study in political science. This already resulted in a few studies developed in tandem with the dissertation research process. This section will review these, as well as briefly discuss the data collection and analysis that lies in the foundation for all three papers. It is important to note again that academic research on the 1948 war is too extant to review here, but is mostly historical, and this chapter sums the research in the social sciences.

2.5.1 Summary of Previous Research

In his classic book *Targeting Civilians in War* which helped birth the field, Downes (2008) used what he called the ethnic cleansing in the Palestine war as a case study. He argued that the reason states target civilians is either because the state's military success is waning, and thus it will deport civilians in order to limit casualties and avoid defeat; or when a state is aiming to occupy territory and thus removes civilians that threaten territorial control. This is a purely macrolevel explanation, but it has heavily influenced the third paper, which looks at how the macrolevel failure or success of the state in the battlefield not only leads to civilian targeting but also determines *who* is targeted, and argues that changes in the macrolevel thus change microlevel targeting strategies.

Two more recent studies quantitatively analyzed the lead up to the war. Muchlinski (2021) describes the institutional structure of the Jewish community in Palestine in the lead up to the war, and observes how the community devolved certain state functions to settler communities, including the use of force. The economic structure of these communities affected their ability to act collectively and then contributed to their security amid rising tensions. Panza and Swee (2023) further developed the link between village economics and security in the lead up to the war. They find that rainfall shocks disproportionately affected the agrarian Palestinian community, and thus lead to increase in income inequality

and relative deprivation between the ethnic communities. This then explained much of the variation in violence between the Palestinian and Jewish communities from 1936 until the start of the 1948 war. Further work that is still in development is centred on how the pre-war history affected wartime dynamics. Finkel (2024) is developing a book manuscript titled *Holocaust Survivors and the 1948 War in Israel/Palestine* that focuses on the effect of WW2 experiences on the war. Haran Diman et al. (2024) are developing a large research project on the spatial development of the 1936 war and how its legacies shaped the 1948 war, titled *From Insurgency to Civil War: A Social Networks Approach to the 1936-1939 Conflict In Israel/Palestine and its Impact on the 1948 War.*

More recently, there has been new quantitative research that similarly to this dissertation tries to explain wartime dynamics. McAlexander (2023) uses the UN Partition Plan as a natural experiment, and shows that the Jewish forces first targeted Palestinian villages for displacement in lands allocated to Israel in the plan, and only shifted to displacing Palestinian villages in lands assigned to the Palestinian state once Israeli independence received international legitimacy. His empirical approach is fundamental to the second paper, on intercommunal non-aggression pacts and the displacement of Palestinian villages. Arnon et al. (2023) focus on flight of Palestinian, which they call preemptive evacuation. They argue that more cohesive villages were more able to act collectively, and thus were more likely to flee before the Jewish forces occupied the village. This study offers a complementary picture to the first paper on the dissertation, which is focused on what lead these villages to try to flee in the first place.

Finally, recently published research focused on the long-term legacies of 1948 violence in the politics of post-war Israel. Haran Diman and Miodownik (2023b) use six district-level indicators for exposure to violence in the war, an instrumental variable approach, and seventy years of election and survey data, to show that Palestinian Citizens of Israel whose community was more exposed to wartime violence are later more likely to vote for Jewish parties. This is, they argue, because of the lasting feeling insecurity that the violence instilled

in the community. Furthermore, Haran Diman and Miodownik (2023a) identify which Jewish villages took over land taken from Palestinians in the 1948 war—including the majority of villages that existed before the war, which then expanded to take over lands from their neighbours. They find that in these villages that profited from the violence, the vote share of the right wing was likely to be higher—in particular if the historic occupation of the land was bloody, or if there is visible evidence for the remains of the Palestinian village.

2.5.2 Data and Methods

A significant challenge in an empirically ambitious project that deals with such a historical case study is collecting data. This is particularly true in this case study, because the historical debate is so politically salient, making the nature of events heavily contested and leading to the erasure of some archival material. However, this means that careful data collection work can be particularly helpful in illuminating the historical debate. The richness of the historical research because of the salience of the events means that there are plenty of resources available for data collection. Historical debate is often focused on the overarching nature of events—such as, for example, whether the combination of violent events amounted to a coordinated and strategic ethnic cleansing campaign. In contrast, the particular details of the events in the microlevel, which are most important for granular data collection, are surprisingly less contested. My approach had been to triangulate the different secondary sources, comparing the detailed and systematic work of Israeli and Palestinian historians. In cases of disagreements I resorted to using primary sources, such as UN reports, Haggana battlefield reports, or Palestinian memoirs.

I first aimed to construct a village-level data set containing information on all Palestinian villages in the war. I did so using the 1945 British Village Survey. This is a version of the census that was more limited due to the World War, and yet still was able to provide information on the location, size, and wealth of every village. I then compared these records with the 1950 census of the Israeli Bureau of Statistics, allowing me to identify which villages survived the war and which did not. This comparison of pre- and post-war data already

revealed valuable information, and was possible due to the rare continuation of high-quality data collection despite the end of colonial rule. I only focused on Palestinian villages in areas occupied by Israeli forces, since they were the only ones in which violence against Palestinian civilians of any form by Israeli forces could feasibly occur.

The data point matching between the 1945 and 1950 lists was done using both names and geographical locations. The Israeli records generally kept the locations names of the Mandate. There were some cases of new local authorities using new names and containing multiple neighbouring Palestinian villages; however, these are easily identified by the location of the village and recorded history. Villages were coded as surviving if they remained in their same place after the war; the Israeli records make sure to identify any Palestinian communities and separate them from Jewish ones, due to the importance of the information to Israel's demographic-based security strategy; so any surviving villages or other Palestinian communities are identified in the 1950 records. Historical accounts of the experiences of every village in the war (i.e. whether preemptive or forced displacement accord) match the discrepancy in villages between the 1945 and 1950 village surveys — lending credibility to using this approach as the first step in credibly identifying displacement.

I then enriched this dataset with information on the wartime events that occurred at every village. Every paper accounts for the sources of the data relevant to it, but there have been some sources valuable to all the papers. Morris (2004) used Israeli archival material to record the date every village was occupied, whether it was inhabited or vacated because of preemptive flight, and the particular circumstances of what happened in the battles over every village. Abu Sittat (2010) provide rich geographical information on every Palestinian village and centralized many different sources to list different accounts of violence. Falah (1996) and Khalidi et al. (2006) scouted the remains of displaced Palestinian villages to provide detailed information on buildings in them and destruction to these. Azoulay (2014) lists all reports on the relationship between neighbouring Palestinian and Jewish villages.

In the three papers, I use a variety of different methods in different ways depending

on whether the need arises for every project. They all aim at causal inference, but are constrained within the limits of doing so with observational studies. They thus aim to increase the robustness of the result with alternative statistical tests or by triangulating different methods. The first paper replicates the theory in an Agent-Based Model (ABM) as a useful way to explain the emergence of macrolevel trends from microlevel behavior. It uses a natural experiment to isolate the effect I focus on. The second paper replicates the theory in a formal model, to clarify the more counter-intuitive elements in it. It uses a variety of different statistical methods, such as fixed effect in panel data, different-in-difference, and instrumental variables to isolate the effect it focuses on. It then uses the results of the statistical analysis to choose two villages to focus on as qualitative illustrations that support the core assumptions of the paper. The third paper starts with a statistical analysis but then relies more heavily on six qualitative case studies to support the findings and mechanism behind them.

2.6 The Three Papers

Motivated by the gaps presented here, I will aim to present across three studies a dynamic and multilevel approach to violence against civilians in armed conflict. Each project uses a rational choice based-approach to develop a mechanism in which the macro and micro levels interact to create changing variations in violence during war. I then examine the testable predictions of these with advanced quantitative and causal inference-based analysis of original fine-grained data from the Palestinian Exodus in the First Jewish-Arab War (1947-1949), as well as qualitative examination of specific events in the war to illustrate the mechanism. The case study of the Palestinian Exodus is paramount to key events in world politics and is rich with empirical opportunities and fantastic data sources, but is often overlooked by political scientists.

In the first study I look at how civilians respond to mass atrocities. I argue that particularly atrocious events at the microlevel can cause a large and strategic macrolevel shift in the war, due to the signal it delivers to civilians, which is then amplified and spreads

nationally due to a positive feedback loop inherent in civilian displacement. Such an exogenous incident of an atrocity can be salient enough to make civilians reconsider their priors, and thus behavior. In particular, after observing the atrocity they would decide to preemptively evacuate, given a model that sees the system as open, so civilians can choose an exit strategy over free-riding or fighting back. I argue then that other civilians at the microlevel face a collective action incentive, because it is beneficial for them to do what they observe other do - whether it is to fight back or flee; once they observe the fleeing civilians, they do so themselves. The creates an exponential loop in which displacement incited more displacement; once the flight reaches a critical mass, the combatants who lost their civilian base become significantly weakened at the national level—and thus a macrolevel breaking point, and a strategic shift, is reached by this microlevel dynamic of flight. I will test this framework with a natural experiment that created random variation in exposure to news about the Deir Yassin massacre in the 1948 Palestine war, testing firstly its effect on civilian premtive evacuation; then the spatial leakage of this effect; and finally how this translates to macrolevel combatant decision making on where to institute cleansing campaigns.

The first study looks at flight, and how microlevel dynamics can create macrolevel breaking point by inducing mass flights that have strategic effects. It describes a micro-macro link that is based on the aggregation of microlevel event into an emergent macrolevel shift (inspired by Schelling (1971). In the next two studies I look at how the aftermath of this breaking point leads both combatants and civilians at the microlevel to change their decision-making, and thus how the microlevel logic of targeting of civilian killings and forced displacement, accordingly, changes. This describes a micro-macro link that is based on a mechanism of exogenous macrolevel events affecting microlevel outcomes, similar to Kalyvas and Balcells (2010).

The second study looks at the formation and breakage of mutual protection pacts, which strongly influenced patterns of forced displacement. I theorize that microlevel civilian behaviour in the war and its impact on displacement and intercommunal relations are shaped

and changed by signals generated from macrolevel political developments. I argue that civilian leaders have an immense influence on whether local enemy civilian communities will be forcibly displaced or not, and thus this allows them to cooperate across group lines to defend themselves from the enemy—or immediately pursue a violent strategy. I show that their decision on whether to nonviolently cooperate or violently attack their neighbours depends on signals they receive from the national, international, or regional arenas—and changes across the war with changes in these settings. I test this framework with original data on intercommunal cooperation and civilian displacement in the war and a nested qualitative inquiry into two villages. I find that cooperation emerged locally as a result of signals from the macrolevel about mutual insecurity and that this cooperation largely broke down due to changes in the macrolevel.

Finally, the third study focuses on explaining the targeting of civilian killings, and starts out from a combatant-based logic. I posit that combatants decide which civilian communities to target with killings at the microlevel based on the macrolevel strategic setting, presenting two logics of targeting that are activated at different points of the war due to this strategic shift. One logic targets the communities that have been observed to work with the enemy, and is activated when the combatants face a defensive position at the national level, observing an enemy invasion; the second logic targets communities of the opposing group that have been previously publicly peaceful and cooperative, in order to signal that violence is random and incite more flight, and is activated when the combatants observe that they are in an offensive position at the national level, attempting to grab as much land as possible. Thus, I argue that combatants are the key actors in deciding in which communities there will be a massacre; and show that while who is targeted depends on microlevel characteristics, these change, depending on the macrolevel setting—which changed from defensive to offensive due to the breaking point described in study one. I test my predictions with original time-stamped and geolocated data on mass killings and village loyalties in the war, as well as archival evidence on war crimes in it.

Altogether, the three studies demonstrate and explain how microlevel events caused the macrolevel strategic outlook during the war to change; and then how this change in the macrolevel strategic outlook influenced changes in patterns of microlevel violence and displacement. They build on previous influential explanations but innovate by bridging theoretical paradigms and building an interactive and dynamic theoretical framework. They then demonstrate that this approach successfully explains complex phenomena not extensively studied before in a highly salient case study that previously did not receive enough scholarly attention.

In my conclusion I will summarise the key findings from every paper and their contribution and implication to scholarships and policy. I will also discuss how these should be interpreted as a whole and the overarching thoughts that bind them together.

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When Flight Begets Flight: Violence, Collective Action, and Flight in Civil War[†]

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Abstract

What explains the flight of civilians in civil war? Extant work has uncovered a series of variables shaping civilians' response to mass violence. However, violence was not strongly established as a causal determinant of displacement, and the social process behind this relationship requires further exploration. I develop a collective action theory of flight in civil war, arguing that civilians who struggle with uncertainty when making the decision to flee turn to rumour networks and social mimicking. Computer simulations show that these dynamics create a self-reinforcing process that leads to refugee stampedes. To test the theory, I use a natural experiment based on random variation in over-the-air radio reception to explore how exposure to news about the Deir Yassin massacre in the 1948 Palestine War impacted Palestinian decisions to flee. I find that villages with radio reception are more likely to flee after the massacre occurred; villages whose neighbours have reception are also more likely to flee; and flight as a

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result of the radio broadcasts further encourages the flight of neighbours. The study disentangles the far-reaching effects of salient violent events in war and provides robust evidence on a key social process underpinning refugee outflows.

1 Introduction

In April 1948, combatants from the Jewish *IZL* and *LHI* militias occupied the village of Deir Yassin and committed an atrocity—killing hundreds of civilians in the village and forcibly displacing the rest of its inhabitants (Morris 2005). This is just one case of indiscriminate violence in the bloody 1948 Palestine War, but it is treatment by historians is notable: it was described in historiography as "pivotal in modern Middle East history" (Hogan 2000). This is so, Morris (2005) claims, because it is a major cause of the Palestinian defeat in the war—since it led to the flight of many Palestinians. Rodinson (1970) agrees: "There were many causes for the Palestinian exodus, the main one being simply that which operated in Spain during the Civil War or in France in 1940: to get away from the theatre of military operations. The fear of Jewish terrorism also played a major part, even though the terror was sporadic and restricted. The massacre of Deir Yassin, despite the condemnation of it by the ruling Jewish bodies, was fearfully active as an act of terror".

Do these popular far-reaching claims have empirical support? This question relates to the assertion that violence directly causes flight. This is a commonplace belief (Melander and Öberg 2007; Davenport et al. 2003; Tai et al. 2022) but such a link was not sufficiently causally identified before. Furthermore, the process by which information about violence spreads and by which civilians make the decision to flee remains strikingly unexplored. How do civilians grapple with the widespread uncertainty in the war when making the decision to flee? To what extent does their behaviour depend on each other? I move beyond material and physical explanations for wartime migration, such as economic push and pull factors or ease of travel Adhikari (2013); Rüegger and Bohnet (2018); Balcilar and Nugent (2019); Schon (2020). Instead, I develop a collective action theory of flight (Olson 2009; Kalyvas and Kocher 2007; Sellars 2019) and focus on the interdependent social process that shapes the

decision of civilian communities to flee war-torn countries. Using an agent-based model, I show that these processes can determine whether a conflict will emit just a few or a tsunami of refugees.

I support this framework with a natural experiment embedded in the coverage of the Deir Yassin massacre in the 1948 Palestine War—exploiting natural topography that created exogenous variation in over-the-air radio reception (Olken 2009; Yanagizawa-Drott 2014), and an extensive panel dataset on preemptive evacuation before and after the massacre. Due to limits on data there is limited direct empirical evidence for the as-if randomness of radio reception, but it is plausible that the assumption of the experiment hold in this case given our knowledge of radio propogation. I show that being exposed to reports of the massacre lead Palestinian communities to preemptively evacuate before combatants reached their village; news about the massacre travelled, as villages neighbouring those with radio reception were also more likely to flee; and finally, that indeed civilians were motivated to act collectively and hence flight begets flight—villages neighbouring those that fled were then also more likely to flee. Overall, as a result of the massacre, a displacement stampede was created that may have tilted the result of the war.

The study contributes to the literature on migration in war (Davenport et al. 2003; Schon 2019; Steele 2019) by establishing a clear causal relationship between wartime violence and displacement and detailing the collective and interdependent dynamics that underpin wartime migration. This has far-reaching policy implications at a time in which states struggle with a global refugee crisis. The study also engages with debates on the efficacy of indiscriminate violence as a counterinsurgency tactic (Lichbach 1995; Wood 2003; Kalyvas and Kocher 2007; Lyall 2009; Kocher et al. 2011), showing that a third option is available beyond free-riding and fighting—exit—and that it is used. Additionally, it contributes to our understanding of an armed conflict that stands at the centre of an extensive historical debate and carries great social importance to modern Israeli politics (Haran Diman and Miodownik 2023b; Haran Diman 2023), but received little attention from social scientists until recently

(McAlexander 2022; Arnon et al. 2022; Haran Diman 2023). Finally, I describe a process in which an exogenous microlevel event influences the behaviour of other microlevel actors in a way that scales up and causes a macrolevel strategic shift—which contributes to the effort to establish such multilevel links (Balcells and Stanton 2021).

The rest of the paper is structured as followed. Section 2 presents the puzzle and details the scholarly contributions of the study. Section 3 explains and outlines the hypotheses I aim to test and scope conditions to them, and Section 4 used computer simulations to emphasize the importance of these. Section 5 describes key details about the case study and Section 6 includes information on the causal-inference framework, data, and methods that I'll use in the study. Finally, Section 7 describe the results from my analysis and robustness checks, and Section 8 concludes with a discussion of the importance of the finding and implications for future research.

2 Riding to Flee: The Determinants and Dynamics of Wartime Migration

The question of the impact of indiscriminate violence on wartime dynamics stands at the centre of a prominent contention in the literature on violence against civilians in war (Kalyvas and Kocher 2007; Lyall 2009). Civilian agency is a factor increasingly emphasized in the literature but is still strikingly unexplored (Schubiger 2021). In this section, I will describe the variation I try to explain using information from a global dataset, outline and critique existing explanations, point at current gaps and areas that require additional work, and detail the contribution of this study.

The number of refugees around the world has almost tripled during the beginning of the 21st century, reaching a staggering 39.1 million in 2017 and leading to a global refugee crisis (Shaver and Fearon 2021). Figure 1 presents the distribution of the number of refugees from different conflicts around the world, adapted from Turkoglu and Chadefaux (2019). The figure reveals substantial variation in the number of refugees who escape different conflicts. This variation does not disappear when weighing the number of refugees by population,

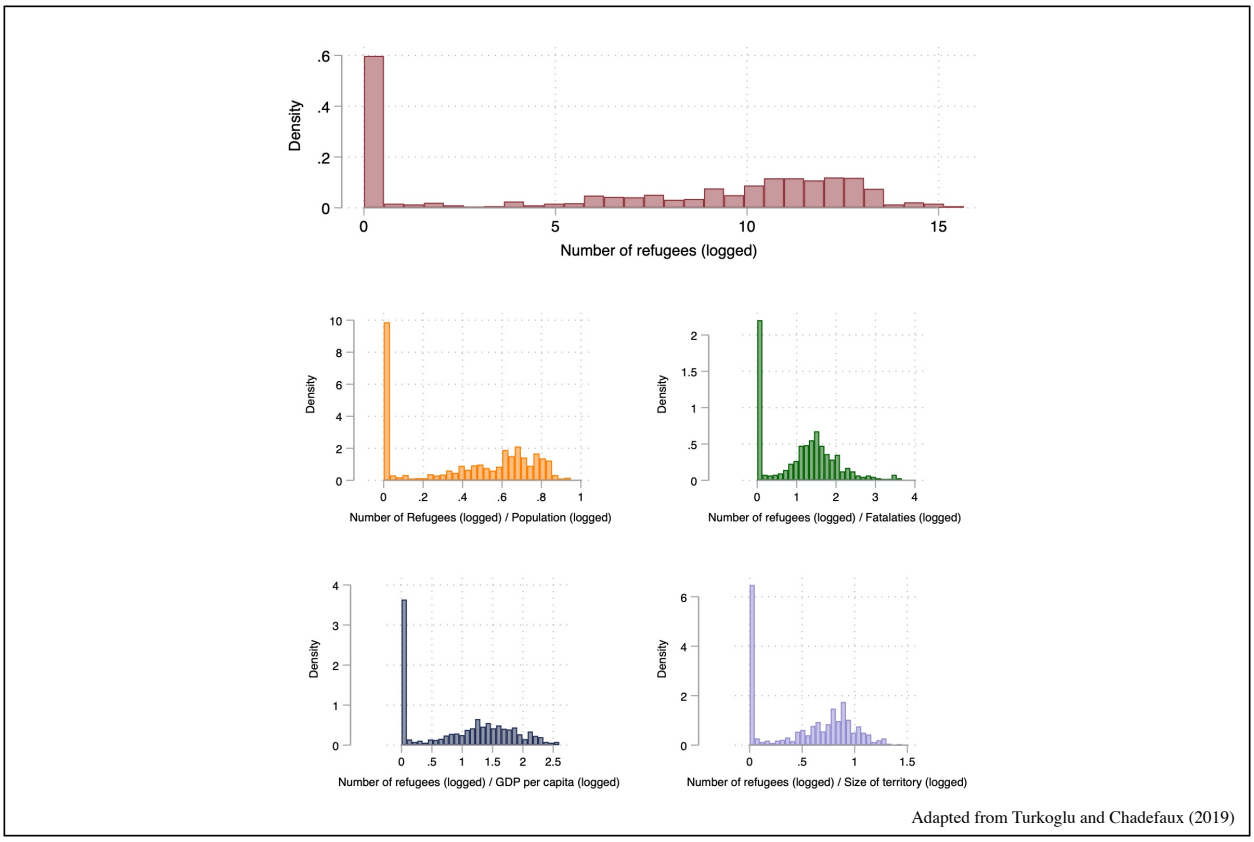


Figure (1) Distribution of Cumulative Flight from Conflicts Around the World

number of fatalities in the war, GDP, and the size of the territory. This suggests that none of these can by themselves explain it. Most interesting is the distribution of this variation: it seems that in many conflicts the amount of refugees is very low, while in others the number is very high, with not much in between. This suggests that there is some critical missing component that determines whether there will be very little flight from a conflict or a large-scale stampede of refugees.

What is the source of this variation in refugee outflows? Some civilians are uprooted in the war directly because of violent expulsion or wartime violence (Balcells and Steele 2016; Steele 2017; Lichtenheld 2020). However, an emerging trend is to approach wartime displacement as a premeditated choice (Adhikari 2012). The variables shaping wartime decisions to flee identified in the literature are diverse and can be summed in four categories: 1. threat of physical harm and fear of violence; 2. social cohesion and social networks 2.

economic disadvantage and opportunities; and 4. physical barriers and geographical terrain (Adhikari 2013; Rüegger and Bohnet 2018; Finkel 2017; Balcilar and Nugent 2019; Schon 2020).

I focus on the first two factors. In particular, two apparent gaps emerge. First, there is a widespread assumption that civilians migrate in response to violence (Melander and Öberg 2007; Davenport et al. 2003; Tai et al. 2022). However, there is no study that robustly tests the causal link between violence and the decision to flee, nor is there a clear mechanism explaining how this process plays out. In research on the social processes of decisions to flee, there is insufficient research on the flow of information on the violence, as well as the interdependence of decisions to flee. Civilians who face wartime violence struggle with extreme uncertainty, and their behaviour is not only impacted by wartime events but also by the decisions of other civilians. Thus, further research is needed on the application of collective action theories in this setting (Olson 2009; Kalyvas and Kocher 2007; Sellars 2019).

As the discussion above details, this study contributes first and foremost to the extant literature on wartime migration, and the puzzling divergent results in it. Schon (2019) argues that while violence is perceived as the main reason people leave, those exposed to it earlier will leave later because it would inspire them to mobilize and act within the conflict. Davenport et al. (2003) found that threats to personal security lead people to flee, but Steele (2019) argued that if the threat is from nonstate groups, individuals would cluster together and stay within the state. Moreover, most studies focus on the initial decision to flee based on news of violence but do not do so causally—just observing who was exposed to violence and how they reacted, without accounting for the varied empirical problem that arises from the non-random selection mechanism that determines who is exposed to violence. This study contributes to this literature empirically by providing a robust causal test of this relationship. It also contributes to it theoretically by shining light on the interdependence of decisions to migrate, and the impact this migration has on the war. Studies in this stream also rarely go beyond showing this first effect, and so do not explore how this decision to flee impacts

others nearby or the conflict dynamic at the macrolevel.

Second, the study contributes to a key debate in the literature on civil wars on the effects of indiscriminate violence (Lichbach 1995; Wood 2003; Kocher et al. 2011; Dugan and Chenoweth 2012). In particular, in two highly influential studies, and an ensuing scholarly conversation, Kalyvas and Kocher (2007) and Lyall (2009) argued and provided evidence for two contrary propositions: the former ruled that indiscriminate violence backfires and strengthens the rival, while the latter claimed that it can be effective in damaging and lowering the propensity of attacks. This divergent result became a salient divide in the literature on violence against civilians, with these studies collectively cited thousands of times. Two assumptions I disagree with stand in the foundation of this debate. First is that civil wars are a closed system—uprooting is too costly and punished—and thus civilians will have to respond to indiscriminate violence with counter-mobilization. A second problem is that despite being based on collective action theories, these studies model decision-making as independent—while in practice civilians will observe others' behaviour when evaluating their position. Lyall (2009) did point at population movements as a key mechanism that causes the effect he finds—in which insurgent attacks weaken as a result of indiscriminate violence—but he does not support this claim due to data constraints. This study thus innovates theories of collective action in war by modelling situations in which flight is possible as a collective response, and contributes empirically due to the fine-grained data on flight in the war.

Third, the study contributes to research on the role of media in conflict. Uncertainty is prevalent in chaotic conflict situations, and so focusing on informational constraints as an analytical tool can be particularly powerful; media plays an essential role in this dynamic and the transformation of conflict. The study expands on studies that explore the role of communication technologies, such as social media (Rohde et al. 2016) and internet access (Gohdes 2020) in civil war, and particularly builds on studies that explore the large effect that radio broadcasts have on political contention and ethnic violence in civil war (Paluck 2009; Yanagizawa-Drott 2014) by revealing the large role radio broadcasts play in wartime

migration and the civilian calculus, as well its effect on the wider outcome of the war.

Fourth, the study has important implications for our understanding of the case study. The Israel/Palestine conflict is one of the most protracted, intractable, and bloody in the world, and is central to global politics. A key reason it is so hard to resolve is contention over the 1948 war (Haran Diman and Miodownik 2023a) and its legacies continue to shape modern politics (Haran Diman and Miodownik 2023b), so understanding this armed conflict better is essential. The 1948 war draws enormous attention from historians and is at the centre of a heated debate that reached a deadlock (Morris 1998). It is possible that statistical tools and careful empirical enquiry with social scientific methods will help shed new insight, but such work is rare—and until recently did not exist at all. McAlexander (2022) and Haran Diman (2023) help explain the dynamics of violent displacement in the war and how borders played a part in it, and Arnon et al. (2022) focused on the intra-village causes of preemptive evacuation. These are a series of insightful studies on displacement in the war, that this research contributes to by describing the effect of response to mass violence on displacement, and the interdependent dynamics that shape them.

Finally, the study offers a meta-theoretical contribution by bridging micro- and macro-level approaches (Balcells and Stanton 2021). As Balcells and Justino (2014) argues, "establishing a theoretical link between macrolevel political processes and local conflict dynamics is crucial for gaining a better understanding of key outcomes" (p. 1346). I show how a microlevel event that was unrelated to macrolevel dynamics caused a state-wide strategic shift and became a macrolevel turning point. As detailed in Section 3, I start from an argument that stems from a microlevel foundation and causal relationships that exist entirely in it. However, in Section 4 I use agent-based computer modelling to describe how these microlevel dynamics exponentially scale up and have a large-scale impact on the conflict process. Thus, the study contributes to efforts to establish such links between levels of analysis and offers a possible mechanism that does so.

3 Theoretical Expectations

I focus on settings in which the cost of displacement is perceived as low enough by at least some of the civilians and then build on the logic of the collective action model to describe the result of indiscriminate violence. My first proposition is that civilian communities who are exposed to the massacre and can do so, flee from the conflict entirely. My second argument is that this effect will leak to neighbouring communities because of information flow created by social networks combining different communities and rumour mills that spread important news. Finally, following the dynamics of collective action, I argue that this effect leaks to other communities who did not initially observe the violence but observed the flight of surrounding neighbours. Flight begets flight, and this dynamic creates panic-induced mass flight that has important implications for the state-wide insurgency.

3.1 First Result: Violence Leads to Preemptive Evacuation

Insurgents face the collective action problem when fighting: most civilians will prefer to stay indifferent, saving the costs associated with mobilization but still reaping the collective benefits the insurgency will achieve (Olson 2009). Indiscriminate violence changes the civilian calculus, by putting them in danger and making free riding too costly (Kalyvas and Kocher 2007). The civilians always face a decision between three options: freeze (free-ride), fight, or flight; these may be compared to those in Hirschman (2004)'s classic model: loyalty, voice, or exit, accordingly. Since indiscriminate violence makes free-riding too costly, the civilians must choose between fleeing or fighting.

If flight is not viable, as Kalyvas and Kocher (2007) argues, indiscriminate violence will backfire by making civilians join the insurgency. But I focus on settings in which flight is considered as an option that bears low cost—and thus is the optimal strategy. Conflict-induced displacement, even of combat-able civilians, is a very common phenomenon (Shaver and Fearon 2021), which indicates that this is not a very extreme setting. In Section 5 I explain why my case study fits this description.

This leads me to the first step in my theory and its first hypothesis. When looking at flight I focus on *preemptive evacuation*, when civilians leave the conflict zone before the conflict reached them and before they face any enemy combatants in person. My hypothesis centres on exposure to news about violence and its influence on the propensity to flee as an empirical tool since I exploit exogenous variation in access to media reports.

I focus on particularly salient cases of violence that seems indiscriminate and random, which I call *mass atrocities*. The treatment I start from is being exposed to news about a mass atrocity.

H1: *Communities exposed to news about mass atrocity against their group will be more likely to preemptively evacuate.*

3.2 Second Result: Information Flow Leads to Positive Spillage

Following the first step described above, it is possible that the news about the massacre will have a secondary impact even on villages that were not exposed to the first reports initially. I will present two possible mechanisms in which the effect is transferred to other communities and then discuss the broader implications of this process.

In his study of propaganda broadcasts and violence in Rwanda, Yanagizawa-Drott (2014) found that the broadcasts did not only have a direct effect on those with radio reception, but they also increased violence in villages neighbouring those with access to radio. This is because of the social interaction between the villages, which means there will be a positive spillage of the effect to neighbouring villages. I would argue that a similar process could be present in the setting of this study - the news about the indiscriminate violence will travel to communities that did not have access to radio by word of mouth, and thus have a secondary effect on the neighbours of those first treated.

H2: *Communities neighbouring those that were exposed to news about mass atrocity will*

also be more likely to preemptively evacuate

3.3 Third Result: Collective Action and a Displacement Stampede

However, in this theoretical framework, the process might be somewhat different because of the impact of the collective action dynamic. As previously discussed, civilians whose dominant strategy initially was to free-ride and avoid joining collective action, stop free riding and mobilized when faced with indiscriminate violence. In their decision on whether to mobilize by joining the insurgency or fleeing the territory, they not only have to estimate the material cost of each option, but they also calculate its likelihood to be successful in protecting them. This means that their strategy after indiscriminate violence was carried it to try and act collectively, and they are interdependent on the decision of other civilian actors. If all civilians flee—the insurgency is likely to fail, as the insurgents lost the civilian base they rely on, and so the utility of joining the insurgency in a cost-benefit analysis would be estimated as lower; if all choose to join the insurgency, its likely to be powerful and succeed, and so it would be preferable to join it. When faced with widespread uncertainty, the best way civilian communities can estimate what is the collective strategy is by observing what other communities chose to do, and this is easiest to do with nearby communities.

H3: *Communities neighbouring those that fled because of exposure to mass atrocity will be more likely to preemptively evacuate*

The difference between hypotheses H2 and H3 is nuanced but important. H2 is a methodological point about treatment spillage that stems from the empirical reality observed by Yanagizawa-Drott (2014). It is similar to H1 and centres on the effect of news about indiscriminate violence, delivered because of proximity to the initial receivers of the news. H3 is, more importantly, a theoretical extension that is based on the logic of collective action and is centred on the effect of observing the flight of neighbours, which was caused by the initial

news. This means that if we isolate the cases of flight that happened because of exposure to news and look at their neighbours, they would be more likely to flee independent of access to the news.

Empirically it is hard to distinguish the two. However, theoretically, it is a meaningful difference that is worth spelling out. Nonetheless, both combine to create a powerful process that can have far-reaching consequences: a displacement *stampede*. This is because the initial news creates panic, which is amplified by the flight. If the flight of one village caused the flight of another, a positive feedback loop is created in which the process reinforces itself. This means that the rate of flight will exponentially increase, and eventually will lead to an exodus of a vast majority of civilian communities.

The conditions that limit the scope of these theoretical expectations are notable. I focus just on cases of violence that are highly salient, which include the brutal targeting of a massive amount of civilians. They are salient because of extreme brutality, notable destruction, or scale that encompasses nearly the totality of the targeted population, all of which makes them notable within the wider landscape of violence they are likely to occur in. This allows news about them to cause particular fear among those exposed to it. Those exposed to the news that will flee will likely be those that can collectively organise to do so well (Arnon et al. 2022) and that can afford to do—partly in terms of the expenses included in migrating, but mostly in terms of the material loss from abandoning property. In order for the stampede to occur, flight needs to reach beyond a tipping point in which it becomes self-reinforcing. This will be most likely to happen in conditions that already favour flight as a strategy—such as if travel to nearby countries is unrestricted by geographical or political barriers, and if these countries are expected to be a hospitable sanctuary.

In Section 4 I present an agent-based computer model that illustrates this dynamic. In the following Section 5 I provide a brief background on the civil war I focus on, explain why it was picked, describe what happened in Deir Yassin, detail the key details on the media coverage of the massacre, and conclude with what was the aftermath of the massacre.

Section 7 presents the results and Section 8 discusses them.

4 How Microlevel Social Dynamics Shape Flight in Civil War: Results from an Agent-Based Computer Model

This study focuses on microlevel processes and tests only microlevel predictions. However, I argue that if these predictions are correct, they can have a far-reaching aggregate impact on flight at the macrolevel. In order to illustrate this point on the importance of these social dynamics, I used agent-based modelling (ABM), a method in which a computer model is used to simulate how the behaviour of autonomous agents creates an emergent systematic change. ABM is often used in computational economics (Tesfatsion 2006) and social simulation, and has been used successfully to model conflicts and illuminate empirical results in the past (Epstein 2002; Cioffi-Revilla and Rouleau 2010; Bhavnani et al. 2014)

The basic setup is as follows. A thousand villages are placed randomly on a plain. These villages have a variable representing preferences over flight, ranging from 0 to a 100. They start with a random preassigned desire to flee that ranges between 0 and 50, and if it passes 50 they flee. Four scenarios were set up with this start. The first represents just a slowly deteriorating battlefield situation, as is the case if the enemy is advancing and forcibly displacing villages. In this scenario, all villages add 1 to their flight preference at every 'tick', iteration of the model. The result is a steady linear increase in displacement as the war prolongs. This is presented in line M1 in Figure 2, which averages the result of running the simulation a thousand times.

The second scenario adds a case of indiscriminate violence broadcasted to some of the villages—based on H1, the prediction that receiving news about violence will increase the proclivity to flee. At a point in time in the middle of the war, a small share of the villages receive the news. Those that receive the news increase their flight preference by 10. The result is represented in line M2 in Figure 2—a small jump in cases of flight after the violence is broadcasted but just a continuation of the linear increase in flight after it.

The third scenario adds to the model the dynamic that H2 describes, on leakage of the

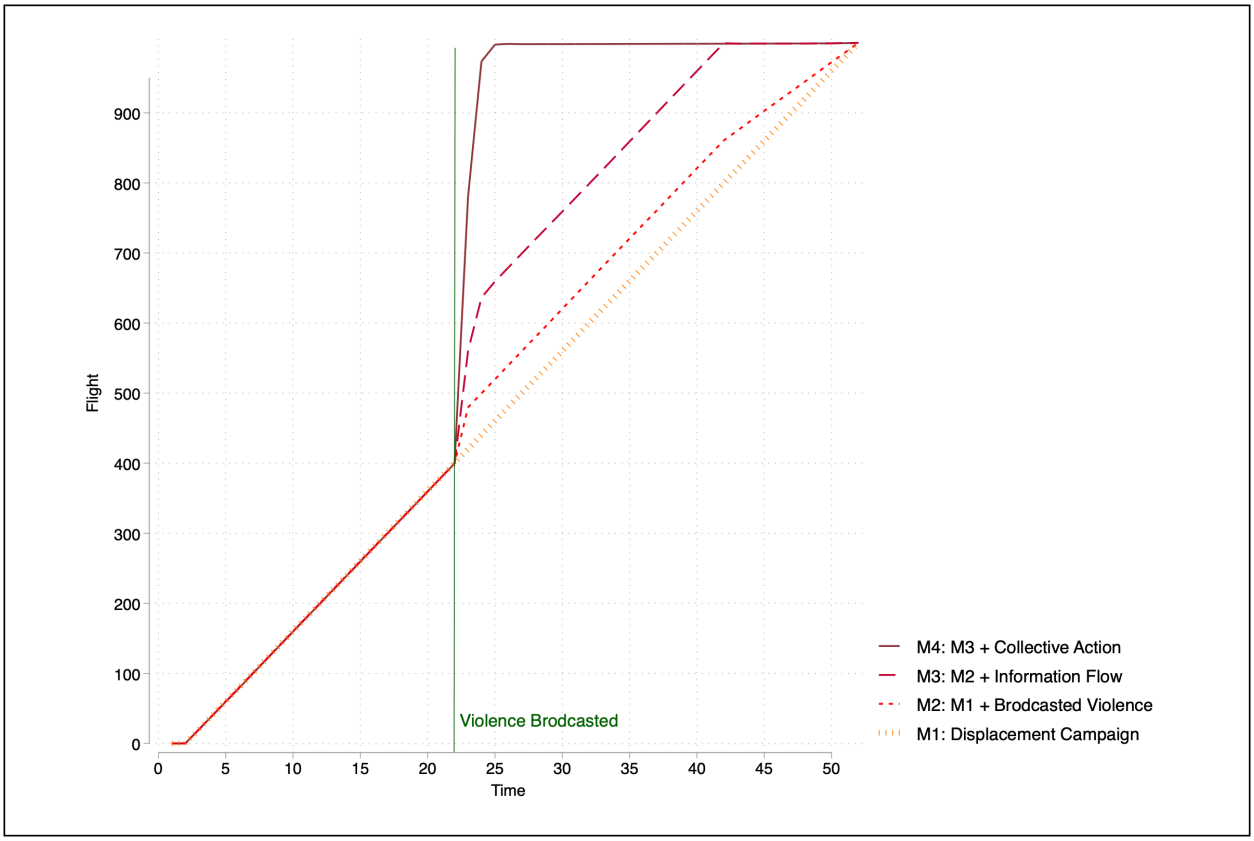


Figure (2) Simulating how Social Dynamics Shape Flight Patterns

news on the violence to neighbouring villages. If a village has a nearby neighbour that heard the news, it will also increase its flight preference by 10. The result is line M3 in Figure 2. The jump in flight after the violence is broadcasted is much larger and lasts longer, but eventually, the flight is still contained and the macrolevel trend is still linear.

Finally, the fourth scenario simulates the outcome if the prediction in H3 is correct, and communities have a strong incentive to follow the behaviour they perceive among others. Every village will increase its flight preference by 20 if one of its nearby neighbours decides to flee. The result is presented in line M4 in Figure 2 and is substantially different; under this setting, macrolevel flight becomes exponentially larger following a broadcast of violence. The results are similar even if the parameters of the model are varied.

The model illustrates the importance of collective action dynamics. If they exist, a self-reinforcing pattern is created, since flight begets flight. As a result, a stampede of refugees is created in a situation that otherwise could look much different. Losing the civilian support base can have consequences on the conflict at the macrolevel, as armed groups who rely on them will struggle to hold territory. The model also points at a few possible scope conditions: this dynamic can only be created if the villages' threshold for flight is sufficiently low, so it would only work in settings in which migration is not enormously costly; if the violence is broadcasted to a large enough share of the villages, so this dynamic would only be created if the violence is salient enough; and if the villages are close enough to each other, so only in cases in which inter-communal social networks are dense enough. The macrolevel consequences and these scope conditions are not tested in this study, and should be the object of future research—I focus instead first on proving that the microlevel processes that may have this impact do exist.

5 Case Study

The case of the 1948 war is rich with empirical opportunities and is fascinating from a theoretical perspective—but received very little attention until very recently (Muchlinski 2021; Arnon et al. 2022; McAlexander 2022; Haran Diman 2023). The benefits of the case

study for this research and the reason it was selected are two-fold: it theoretically clearly suits the scope conditions, and it empirically offers immense benefits.

First, it suits the scope condition very well: Palestinian citizens estimated the cost of uprooting as particularly low, and so we would expect the process outlined above to play out. The insurgency was based on an agrarian community that values its land highly, just as is the case in most irregular wars. But the war-torn territory was surrounded by states actively allied with the Palestinian side in the war, who were culturally and ethnically proximate to the Palestinians, and most openly accepted refugees. This means that there were relatively few barriers stopping migration and that the costs usually associated with settling in new countries would be perceived as low, even if in practice in the long-term they suffered from repression and exclusion. Moreover, the Palestinians fled in groups of communities, based on their kin-based cohesive villages, as Arnon et al. (2022) finds. This would mean that the migrants could preserve much of their close ties and social group. Finally, some of the Palestinians may have thought that the situation of the war is fluid, and thus that return would be possible at a later date—and so the cost of fleeing would be strictly limited. The leadership of the Palestinian communities strongly resisted the flight, particularly that of military-aged men (Khalidi 2005), because this would harm the insurgency and, as Haran Diman (2023) argues, the civilian leaders would lose their power over the community after it is dispersed—but the civilians themselves did not perceive flight as very costly.

Second, and most importantly, the richness of data on the violence during the conflict and some unique empirical features mean that it would be possible in this case to establish causal relationships more robustly and test the mechanism more directly than was done before. Both Kocher et al. (2011) and Lyall (2009) admit that because of strict data constraints they can not test most of the components of their theory—just a limited amount of observable implications, which are usually the last step in the theory and relate to changes in insurgent violence. Using the data available in this case, I provide evidence for each step in the

process that was described above. This evidence is still at the village-level, and not the individual level, but that makes sense in this conflict, in which communities mobilized and made decisions collectively. Both of these studies also rely on a framework for causal inference that, while innovative and strong at its time, is based on questionable assumptions about the randomness of violence and simple matching techniques. Using a natural experiment long-relied on in economics, I detect a naturally created random variation in exposure to indiscriminate violence that is more robustly exogenous, as I explain in Section 6.

Given these particular theoretical and empirical reasons, I focus on the war as my case study when testing the hypotheses described above. I will now turn to detail the key facts about the war and the violence and displacement in it, with special attention given to explaining two key pieces of information: the exogeneity of the Deir Yassin massacre and the central place it received in radio broadcasts.

5.1 The 1948 Palestine War

The Jewish and Arab groups in Palestine lived relatively peacefully but faced a growing strain due to the increasing Jewish immigration to the territory, because of the rise of the Zionist movement and later because of the Jewish Holocaust. In November 1947 the UN decided to end the British mandate over the territory and divide it between two ethnic states—Jewish and Palestinian. Immediately, violence started as both sides organized to form militias and fight to maximize the territory under their control. The war was one of an insurgency because the armed actors were, as Kalyvas and Kocher (2007) describes it, using "a technology of military conflict characterized by small, lightly armed bands practising guerrilla warfare from rural base areas" (2007: 178). However, the was no "state" or "government forces" initially because the war accompanied the chaos of the withdrawal of the British mandate from the territory, that served in those roles. Thus, both the Israeli and Palestinian militias were, in a way, playing the role of insurgents for some time; I refer to the Israeli side as the incumbent because I focus on how it executed indiscriminate violence, and because it declared independence as a state on the day of the official British withdrawal.

5.2 The Deir Yassin Massacre

During the 1948 Palestine war many massacres and war crimes were carried out, and indiscriminate violence was common. I focus on the most salient case of indiscriminate violence that revealed for the first time the danger Palestinians faced—the Deir Yassin massacre. In the middle of the War, combatants from the small but most extreme Jewish militias, *IZL* and *LHI*, occupied the village of Deir Yassin, in the outskirts of Jerusalem. They then massacred more than a hundred of the villagers, including non-combatants, women and children, and then proceeded to loot and burn the bodies and houses (Morris 2005). Any survivors were placed on trucks and expelled to villages controlled by Arab forces. The massacre became the most infamous event of the war, with the number of deaths being the largest in it except for the occupation of the city of Lydda. This mass atrocity is salient because it is so unusually large, killing more than a hundred civilians in one small village; but historians claim that this event was a result of local decision-making that surprised the national leadership.

The mainstream Jewish militia, that became the Israeli Defence Force shortly thereafter, was the Haggana. It had the overall command of the Jewish combatants in the war and coordinated the national struggle. The local commander of the Haggana declared the Deir Yassin would be protected from any violence because it refrained from supporting the insurgency and signed a peace agreement with its Jewish neighbour (Gelber 2004). But the quickly changing battlefield conditions at the macrolevel (Haran Diman 2023) lead him to approve an attack against the village, as long as it will only include taking control of it, not destroying it (Morris 2005). However, the combatants who were tasked with this mission were from small and underground extremist militias. The local commander of this unit of soldiers, Ben-Zion Cohen, decided together with his troops to kill all the men of the village and any other civilian who resisted being expelled, according to his own admission (Aderet 2021). This was despite the contrary instruction from the Haggana, which was coordinating the war nationally, and opposition even from the national leadership of the extremist militias themselves (Morris 1999). What this means is that the massacre itself was a purely local

event, external to the national strategy of the Jewish forces and exogenous to state-level decision-making.

5.3 Radio Broadcasts and the Palestinian Exodus

In 1936, the second radio station in the Middle East has launched: the Palestine Broadcasting Service (PBS), built by the British mandate with a transmitter in Ramallah and offices in Jerusalem and modelled after the BBC. The radio station broadcasted in Arabic, Hebrew, and English, was part of the British commitment to building up the territory and its sovereignty so it can govern itself and came during the golden age of state-run radio in the 1930s and 40s (Bissada 2019; Stanton 2021). After the British withdrawal, the station split into two. The Haggana took over the offices of the PBS in Jerusalem, built an emergency transmitter in Tel Aviv, and renamed it "Kol Israel". The Palestinian forces took over the transmitter in Ramallah and used it to broadcast the "Ramallah Radio" in Arabic (Stanton 2013). The Palestinian-controlled radio station covered the Deir Yassin massacre extensively, and also deliberately exaggerated what happened in the village—claiming dozens of pregnant women and children were also killed.

In the rest of the war, the Palestinian side suffered great defeats. The Israeli forces took over the majority of the land, way more than what the UN assigned the Jewish state; and a vast number of Palestinians remained uprooted and stranded away from their original villages—around 700 thousand refugees fled and hundreds of villages, most of the Palestinian localities in the territories that came under Israeli control, were occupied and destroyed, data from the war shows (Haran Diman and Miodownik 2023b). A chief reason for this was, according to speculation by historians and military analysts, the panic that followed the massacre and the coverage it received in radio broadcasts. "The effect of the Deir Yassin incident was profound", Hogan (2000) writes, "panic flight of Arabs from across Palestine also began to increase dramatically". Morris (2005) reveals the mechanism by which this information moved around: "The chief effect of Deir Yassin, without doubt, was to sow fear and panic among Arab villagers in the surrounding area and in areas farther afield,

helping to precipitate further flight. Paradoxically, the chief agents of this demoralization were *Arab radio stations, which over the days and weeks broadcast horrific and exaggerated accounts of what had occurred*". Shlaifer (2014) concurs: "Even though Deir Yassin was neither planned nor designed to have a lasting psychological influence, what transpired was exploited to the hilt and became a turning point and major factor in the Palestinian Arabs' mass flight to neighbouring countries... The rumours were fanned by Hagana intelligence officers and *Arabic-language radio broadcasts.*" This goes to show that the radio broadcasts has an important, salient presence in wartime communication and in civilian decision making in the war.

6 Research Design

The detailed theoretical framework and complex particularities of the case study can make it challenging to show strong support for all assertions made so far. However, I was able to isolate an exogenous variation in access to Palestinian radio broadcasts, as well as collect detailed data on flight. This allows me to identify exposure to news about indiscriminate violence and detect how civilians respond to it. I start by presenting the natural experiment, then describe the data, and finally outline how I combined both to support my hypotheses.

6.1 Natural Experiment

It is clear from Section 5 that radio played an important role in 1948 Palestine and a central role in the coverage of, and reaction to, the Deir Yassin massacre. Thus, identifying variations in access to Palestinian radio would be the first step in uncovering the effect of exposure to news about indiscriminate violence. Since access to the radio can cause, by itself, other differences in civilian decision-making in war, it is also important to isolate only the impact that the coverage of the indiscriminate violence had; for that reason, the next step would be to observe whether the the effect of access to radio is different before and after the Deir Yassin massacre.

Fortunately, there is a natural experiment long used in economics (Olken 2009; Keefer

and Khemani 2011; Cheung 2012; Yanagizawa-Drott 2014; DellaVigna and La Ferrara 2015) that allows for the identification of plausibly exogenous variation in over-the-air radio signal strength. Radio reception depends on, naturally, distance from the transmitter; but it also depends on topography. In order to access radio broadcasts, there needs to be a direct "line of sight" between the transmitter and the radio. In other words, if there is a large mountain between the transmitter and the radio, the signal will be interrupted. Illustrations of this are presented in Figure 10, Figure 11, Figure 12, and Figure 13 in the appendix. Since the distance to the transmitter and elevation can both be correlated with variation in violence or other outcomes, they need to be controlled for.

Once that is done, any difference in radio signal will only be the result of one village being on the radio-receiving side of a hill or mountain, with the other being in a similar height and distance but on a side of a mountain that does not receive radio reception.

The territory of Israel/Palestine is very mountainous, so there is likely to be a significant amount of variation between villages. This variation will be hyper-local and depend purely on whether there randomly is a hill between the transmitter and the village. Therefore, this variation stems from naturally-caused, quasi-random, slight and small differences in topography, and so is plausibly exogenous. Figure 3[1] presents the results from balance tests of key pre-treatment variables between villages that did and did not have radio reception. As can be seen in the figure, villages that had radio reception were not, on average, wealthier or larger than other villages before the war. Two key variables that determine targeting by Jewish militias are the amount of land and the proximity to Jewish villages of the Palestinian villages; these are not related to whether they had radio reception.

This is just a limited amount of balance testing given limits on data, but helps offer some empirical support to the assertion that radio reception is not associated with the most important variables.

This design will isolate exogenous variation in access to radio. The effect of access to the

[1]Presented in Table Format in Table 1 in the Appendix.

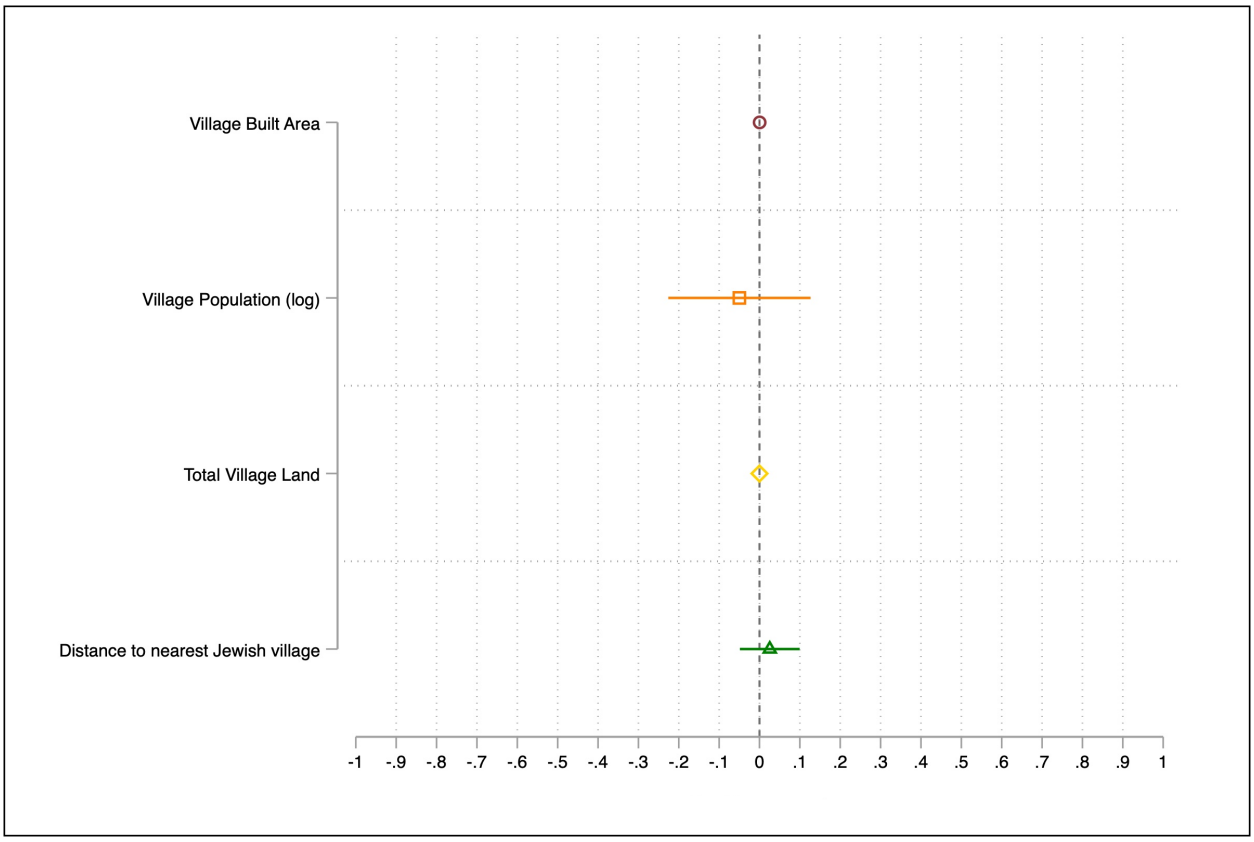


Figure (3) Balance Tests on Over-the-air Radio Reception and Pre-Massacre Variables

radio broadcasts will be mostly comprised of the impact of the Deir Yassin massacre, but not exclusively. The access to information that radio transmits can have an independent impact on civilian decision-making. To isolate only the impact that the reporting on the massacre had, I look in particular at the time period following the Deir Yassin massacre, with analysis of radio reception and flight before the massacre used as a placebo. The Deir Yassin massacre was a result of an unauthorized decision by local commanders that surprised most actors and was unrelated to other trends or decision-making; thus, the timing of the massacre was plausibly exogenous. This framework of causal inference, combining the plausibly exogenous access to radio and the plausibly exogenous timing of the massacre, trumps research designs that would use just one of those—such as those that would only look at the cross-sectional difference that radio reception caused or an interrupted time series that looks at the effect of the massacre on all villages.

Key to this approach are a number of assumptions on how information flow and flight happened. Firstly, I argue that radio is the main source of information spread. Newspapers in Mandatory Palestine were published weekly, and distributed just to major cities and towns, where they could only be read by literate citizens—which was uncommon. The refugees from Deir Yassin were all sent as a group to Jerusalem, which has been barricaded; the flow of information from word-of-mouth through travel between villages would thus also be relatively limited. By contrast, radio broadcasts would have been immediate; could be heard by anyone, not requiring literacy; and would be received already in 1948 by thousands of radios licensed by the British government (Stanton 2013). Indeed, the radios are portrayed in accounts from the time as the main source from which civilians first heard the news of the massacre and they are widely accredited for generating the panic following the massacre Shlaifer (2014). It is important to note that the theoretical model portrays the decision to flee as dependent on a balance of considerations that is tilted by receiving reliable news of the violence; thus, whether communities received the news from other sources does not matter, since the change in the likelihood of receiving further news from a reliable source would still result in this balance tilting.

Furthermore, I observe flight in the spatial level of a village and temporal level of months. The former is because these villages were usually cohesive communities connected by kin, and thus fled collectively (Arnon et al. 2022). This meant that flight was generally either limited to just a few outliers within a village, or encompassed the vast majority of the community; in most cases the entire village fled as one. A result of this is that villages took time to respond to such events - after the deliberation and coordination that any collective action effort requires. The news about the violence signalled the danger to civilians from staying if and when Israeli forces would reach them, but this does not necessarily mean that an occupation is expected to happen immediately for all villages. As portrayed in Figure 9, many villages fled within days of the massacre, in what is a stark change in previous trends; but this spike continued for several months.

The empirical approach isolates variation in access to radio that results from just having or not having a direct line of sight from the radio transmitter. This is also correlated with a set of other spatial variables, but these are easily identified by the physical rules of radio propagation, and can thus be controlled for - particularly the distance to the transmitter and the elevation of the village. Controlling for them isolates the variation in radio reception that was just the result of physical barriers between the transmitter and the village - so identical nearby villages might vary just because one if on the other side of a hill (see Figures 10 and 11 in the Appendix). For this identification strategy to work, the territory around the transmitter has to be rugged or hilly, which then leads to the creation of variation in transmission. Thus is the case with the territory around the Ramalla transmitter (see Figure 12 in the Appendix). The territory of Israel/Palestine is limited in geographical scale, and is equivalent or smaller than the states or regions similar analysis was conducted on. The robustness tests check for the validity of the results with sub-district fixed effects and all models control for the latitude and longitude of villages, thus limiting the analysis to comparison of spatially proximate villages.

6.2 Data

In order to carry out the aforementioned identification strategy, I built a monthly panel dataset of Palestinian villages in the war. The dataset is at the village level because the decision to flee was usually collective and carried out by the whole village together (Arnon et al. 2022), just as forced displacement by Israeli forces. The foundation of the dataset is the British Village Survey (1945). I calculated the strength of the radio signal in every village in a geographical information system (GIS) software using a physics-based electromagnetic propagation model that incorporates data on the topography of the land and the coordinates of the villages, as well as data from historical accounts on the size and strength of the transmitters, to calculate the strength of the radio signal across the land. Figure 4 describes

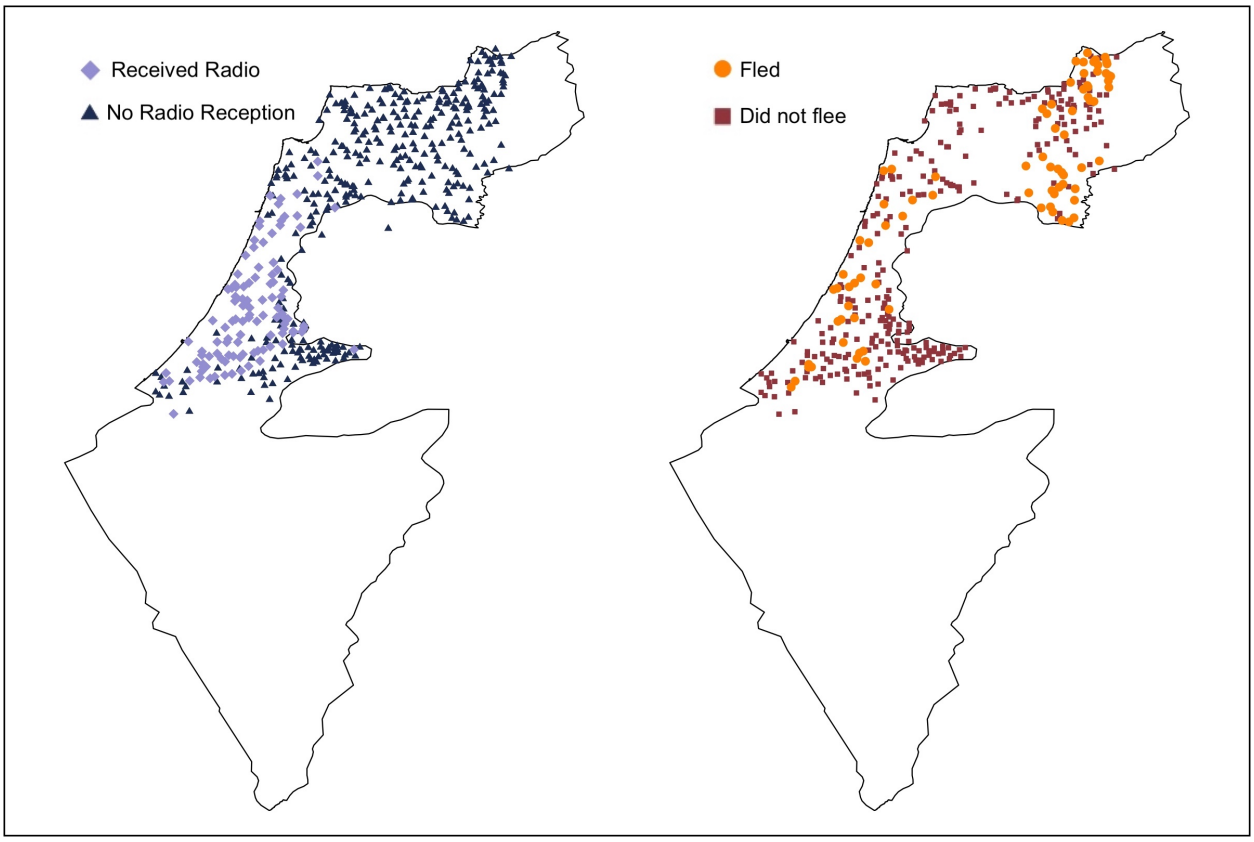


Figure (4) Spatial Dispersion of Palestinian Villages and Key Variables

which villages, according to my model, were able to receive radio reports from PBS[2].

To measure preemptive evacuation, I used information from Morris (2004), which classified the reason every village was displaced into six categories. Following Arnon et al. (2022) and Haran Diman (2023), I differentiate between villages that were forced to leave due to violent expulsion or a direct attack by Israeli forces, and thus were *violently evacuated*, to villages that left without this happening for other reasons, most often fear of the potential of violence—the *preemptively evacuated*. Figure 4 presents the spatial dispersion of Palestinian villages, grouped by whether they preemptively evacuated-fled or not.

Therefore, I compare villages that preemptively fled and villages that were violently displaced. In order to differentiate between the impact before and after the Deir Yassin

[2]A large share of the villages with radio reception are concentrated in particular sub-districts; to account for possible bias arising from this, I replicate the main models described below with a panel dataset of villages and fixed effects at the sub-district and month level, as can be seen in Table 5 in the appendix.

Massacre, I thus compare villages that fled before the massacre to villages that were forcibly displaced before it; and vice versa after the massacre.

In order to account for possible biases related to radio reception, I include controls for all variables that predict radio reception and are not just random topography—the village's elevation, distance from the radio transmitter, distance from Deir Yassin, latitude, and longitude. Overall, this data enabled me to uncover the effect of exogenous variation in access to radio reports about Deir Yassin on the likelihood of villages preemptively evacuating (H1), and on whether there was a positive spillage of this effect (H2 and H3).

With these variables included, the estimation equation of the main logistic regression model (presented in Figure 5) is $P(Y = 1|X) = \frac{1}{1+e^{-(\beta_0+\beta_1 X_1+\beta_n X_n)}}$ where $P(Y = 1|X)$ is the probability of the village to flee given the independent variables, X_1 is whether the village has radio reception, and X_n are the control variables.

7 Results

7.1 The Effect of Broadcasted Violence

For the analysis, I first looked at the effect of having radio reception on the likelihood of preemptively evacuating in the 1948 Palestine war. I run a simple logistic regression with robust standard errors and with controls for all variables that predict radio reception and are not just random variations in topography. The results are presented in Figure 5[3]. The results reveal that having radio reception is positively and significantly ($p < 0.01$) correlated with flight. This effect is substantial: having radio reception more than doubles the likelihood of flight, from 15.3% to 35.4%. This correlation exists for a sample containing all displaced villages across the was but is particularly pronounced for villages who fled or were forcibly displaced after the massacre. This effect does not exist for villages occupied before the Deir Yassin massacre: the effect for these is completely null; it may be that this is due to the limited statistical power inherent in analyzing just villages that fled or were forcibly displaced before the massacre, but the substantial effect size is also smaller and is reversed

[3]Presented in Table Format in Table 2 in the Appendix.

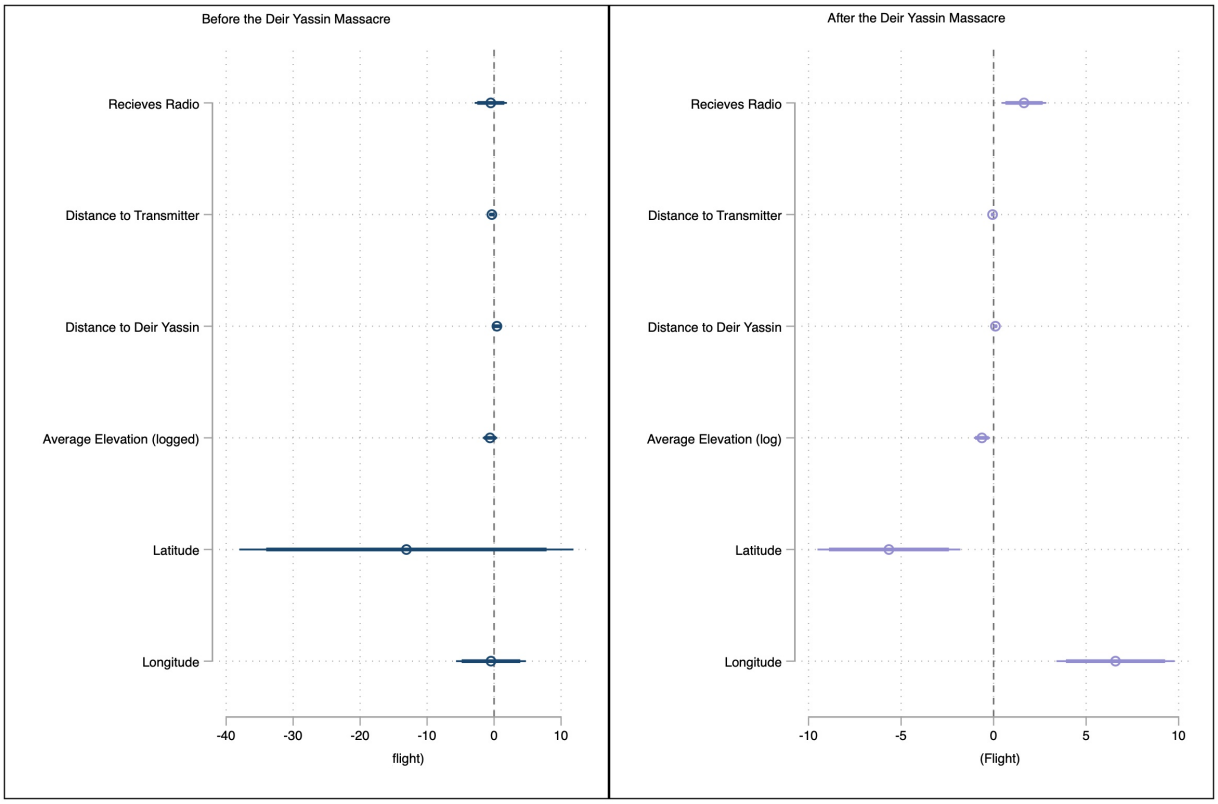


Figure (5) The Effect of Over-the-air Radio Reception on Civilian Flight (logit)

* The figure presents the results of a logistic regression model analyzing the relationship between radio reception and a series of controls with the likelihood of flight for every village, with the x axis plotting the coefficients of every variable from logistic regression models for just villages that fled after (right) or before (left) the Deir Yassin massacre. Presented in Table Format in Table 2 in the Appendix.

in direction. This shows that there was no preexisting difference in proclivity to flee due to radio reception and that this effect was created only after the massacre.

Interestingly, the effect of having access to these radio broadcasts reporting the violence on flight is conditioned on what the communities have to lose. As expected, the effect is heterogeneous and is created when the cost of migration is not too high. Figure 6 presents the marginal effects in a model similar to the one above, but in which an interaction with the amount of land held by the village is added—the main form of wealth agrarian Palestinian communities could have. Villages with a lot of lands would be less open to emigrating and losing it, while those with less land will have less to lose from fleeing. The figure reveals that among villages with low amounts of land, having radio reception has a very large impact on

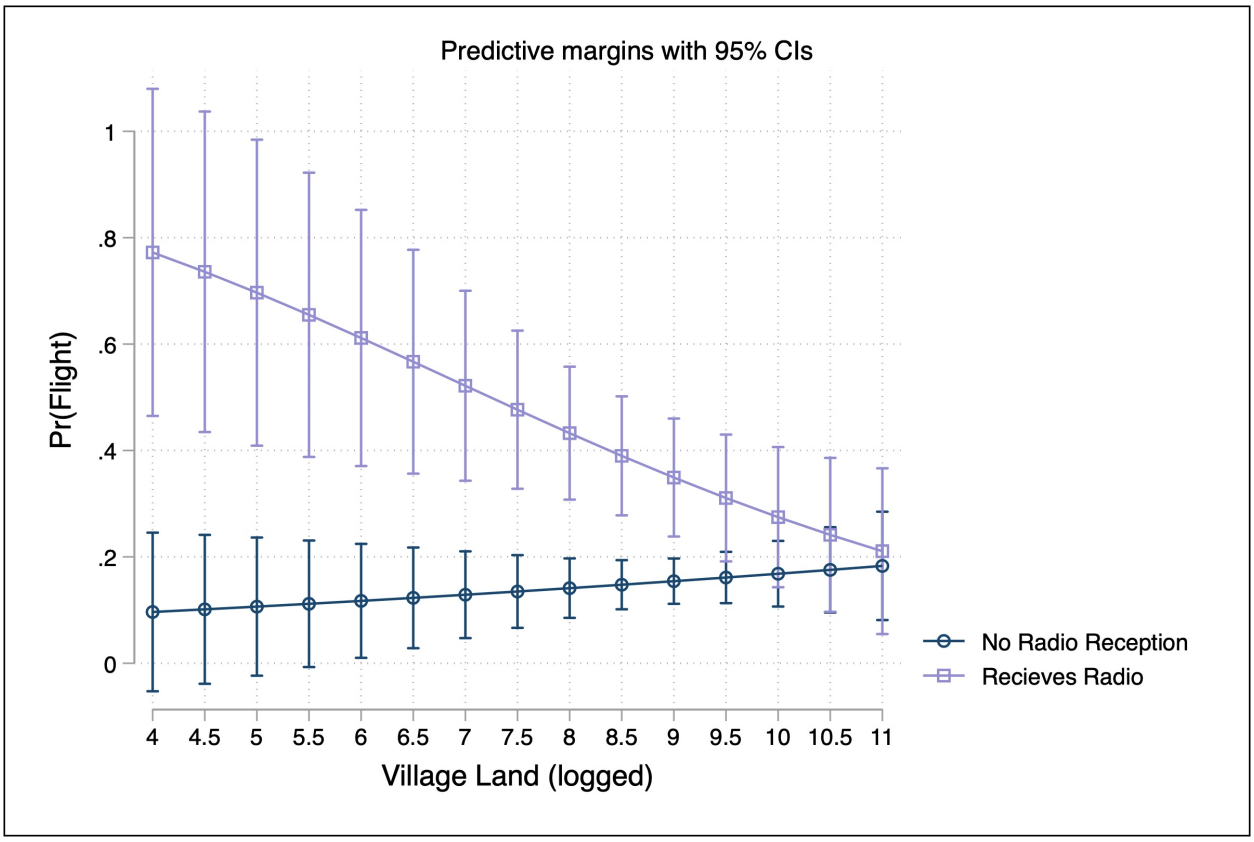


Figure (6) The Effect on Radio Reception on Flight Depending on Size of Village Lands

*The figure presents the marginal probability of fleeing depending on the whether a village has radio reception and its logged amount of land, with the other variables averaged, based on fitted values from the logistic regression model.

proclivity to flee — more than quadrupling the likelihood these villages will preemptively evacuate. In contrast, in villages with a very high amount of land, having radio reception does not change the likelihood of flight at all and has a null effect. There is a low likelihood that villages with no radio reception will flee no matter how much land they own, but villages with radio reception are more likely to flee overall, and heavily depend on what they have to lose.

7.2 Evidence for Information Flow

Next, I calculate the share of villages that have radio reception in proximity to every village. I calculate the share of villages in a 10 by 10-kilometre square around every village that received radio broadcasts. This helps measure village neighbours' access to the news reports

about the violence, with the expectation that the news travel between villages. Running a similar regression, presented in Figure 7[4] I find that the share of villages in close proximity that have access to radio is also positively and significantly ($p < 0.05$) correlated with flight. The likelihood for villages that have radio reception and have no neighbour with radio reception to flee is 17.8%; in contrast, villages with no radio reception, but whose neighbours all have radio reception, are predicted to flee in 66.5% of cases.

This relationship is, once again, null for villages occupied before the Deir Yassin massacre; having neighbours with radio reception is not related at all to flight before the massacre. This effect is also null for villages with radio reception; neighbours' reception only matters if the village does not have reception itself. This suggests that news about the Deir Yassin massacre travelled from villages with radio reception to nearby villages who do not have it, and they were also affected.

7.3 Evidence for Collective Action

Finally, I use radio reception as an instrument for flight. As seen in Section 7.1, radio reception is strongly correlated with flight, and as seen in Section 6, it is plausibly exogenous to local village characteristics. For each village, I calculate the share of neighbours (in the 10km surrounding) that fled and instrument it with the radio reception in them, controlling for the village's own radio reception. The first stage results indicate the instrument is strong enough ($F > 10$) and the results of the two-stage least squares model are presented in Figure 8[5]. I do find evidence for a mimicking effect of flight. The share of neighbours who fled is positively and significantly ($p < 0.05$) correlated with village flight. If a very small share of its neighbours fled, the likelihood a village will flee is close to 0; if a very high share of its neighbours fled, the likelihood a village will flee is close to 1. This reveals that flight does indeed begets flight and that this effect is very powerful.

Importantly, Figure 14 in the appendix shows that this relationship is consistent and

[4]Presented in Table Format in Table 3 in the Appendix.
[5]Presented in Table Format in Table 4 in the Appendix.

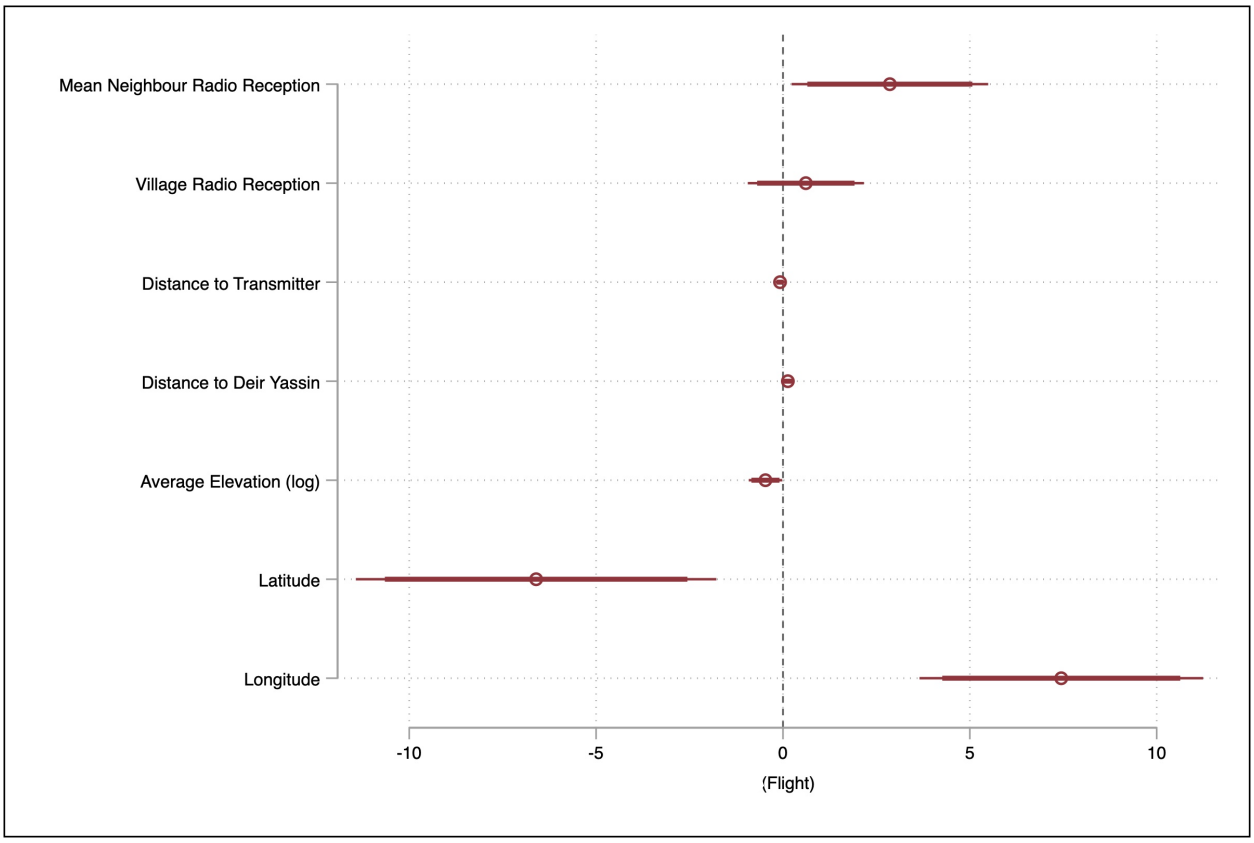


Figure (7) The Effect of Neighbouring Village's Over-the-air Radio Reception on Civilian Flight (logit)

* The figure presents the results of a logistic regression model analyzing the relationship between the share of a village's neighbours with radio reception and a series of controls with the likelihood of flight for every village, with the x axis plotting the coefficients of every variable from logistic regression models for just villages that fled after the Deir Yassin massacre. Presented in Table Format in Table 3 in the Appendix.

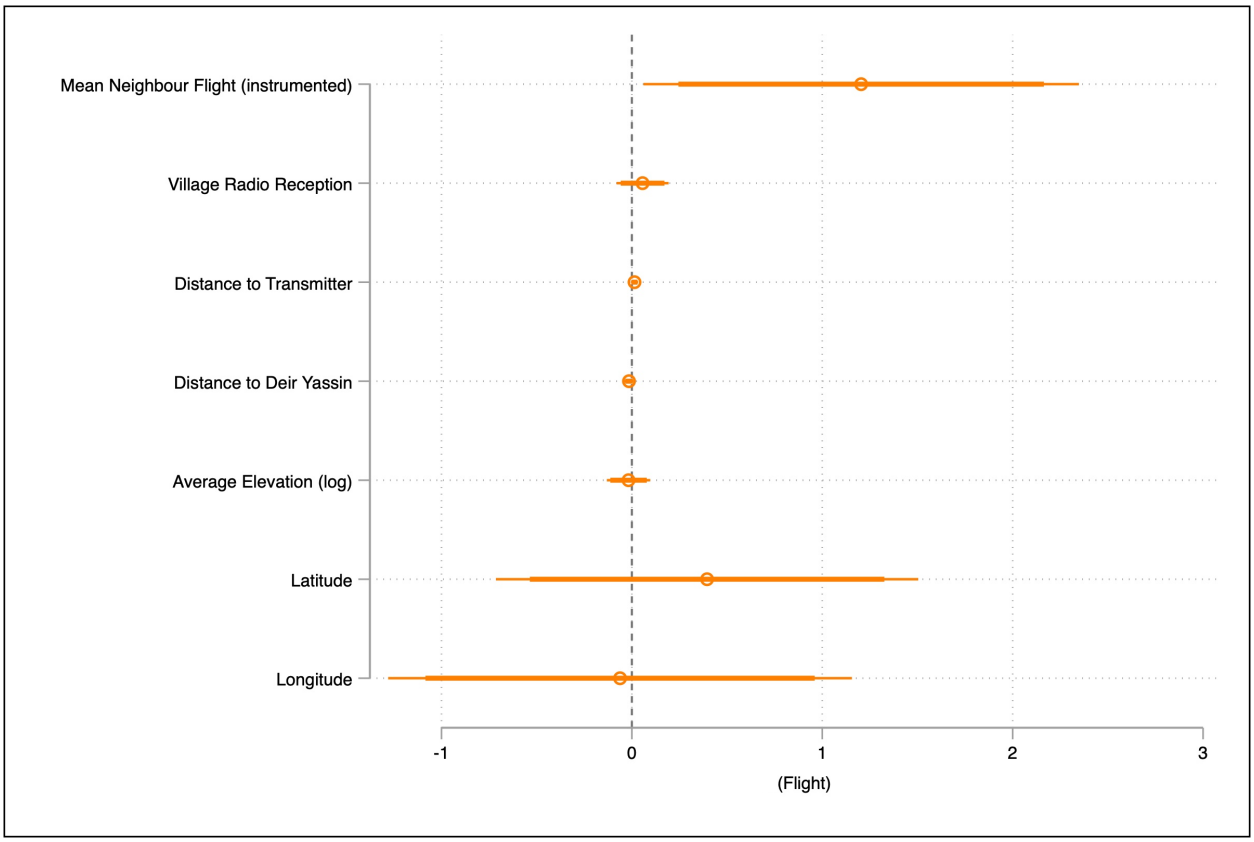


Figure (8) The Effect of Neighbouring Village's Flight (instrumented) on Civilian Flight

* The figure presents the results of an instrumental variable model analyzing the relationship between the share of a village's neighbours who fled (instrumented by the share of neighbours with radio reception) and a series of controls with the likelihood of flight for every village, with the x axis plotting the coefficients of every variable from logistic regression models for just villages that fled after the Deir Yassin massacre. Presented in Table Format in Table 4 in the Appendix.

identical with both villages with and without radio reception. The exclusion restriction does not hold for villages without radio reception, since the neighbours' radio reception affects their likelihood to flee through information flow. But as explained above, for villages with radio reception, the share of neighbours with reception is not at all independently correlated with flight. This may lower concern about endogeneity between the instrument and flight, and show that it is neighbours' flight that is leading these villages to flee in this instance - not access to radio reception directly. Alternatively, the results are similar in a model in which flight is used as an independent variable and both direct and indirect radio reception are controlled for.

This is evidence for the collective action theory of flight—civilians have an inherent incentive to act collectively when deciding on how to respond to mass violence, and so they are more likely to mimic the behaviour they witness in others.

7.4 Aftermath

The findings above show some key microlevel details on wartime decision to migrate: it is caused by receiving news about mass violence against civilians; this effect then spatially leaks as the news travel between villages; and flight leads to further flight. The study cannot neatly distinguish the different pathways in which radio affects flight, beyond establishing it as a general relationship. It is also beyond the scope of this study to provide direct evidence on the macrolevel impact of these findings. However, there is some indication that the dynamic described by the computer simulation presented in Section 4 as a result of collective action dynamics did play out in the 1948 war. It is called the Palestinian *exodus* for a reason; thousands of civilians fled during the war in the panic that ensued from the massacre, and this had significant effects.

Figure 9 presents the cumulative number of villages that preemptively evacuated in the immediate months before and after the Deir Yassin massacre. As the war broke out, villages immediately started to flee; however, only a small number fled and the rise in flight was slow and gradual, stagnating until the massacre. However, immediately after the massacre

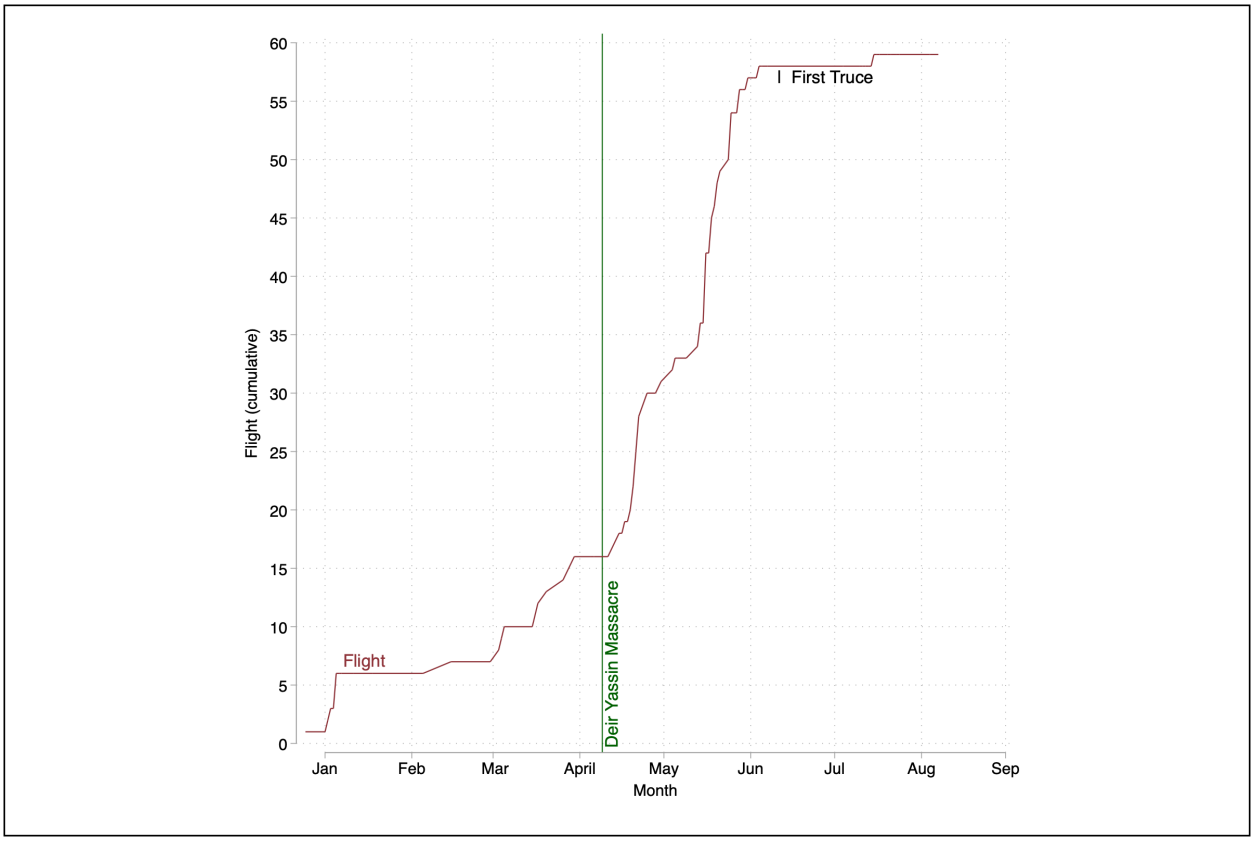


Figure (9) Civilian Flight in the 1948 War

the number of villages escaping exponentially sky-rocketed; 50% of the villages who fled did so in the 1.5 months between the massacre and the first cease-fire—in a war that lasted 21 months. The computer simulation predicted just this pattern of flight if the microlevel dynamics described in the case study above play out.

Moreover, this clearly had an impact on conflict dynamics; villages that had radio reports but did not flee after the massacre were much less likely to cooperate with Palestinian militias if a higher share of their neighbours fled, as seen in Figure 15 in the appendix. This suggests that even among those that could not flee, the flight of others had a chilling effect that deterred counter-mobilization.

8 Conclusion

What guides the decision of civilians who face wartime violence to migrate? In this paper, I provide evidence that it is not just economic temptations or ease of flight. Civilian commu-

nities grapple with uncertainty in chaotic armed conflicts and escape it if they receive reports of mass violence and do not have a lot to lose. The news about the violence quickly travels and influences the decision to flee to other communities. Crucial to the decision process is what actors perceive as the behaviour of others: they remain if neighbouring communities do so, but flee if that's what others do. The latter process is self-reinforcing and has the power to incite wide-ranging mass flight that devastates the warring group.

The paper contributes to the extant literature on wartime migration (Adhikari 2013; Rüegger and Bohnet 2018; Turkoglu and Chadefaux 2019; Schon 2020; Shaver and Fearon 2021; Tai et al. 2022) by providing strong causal evidence that violence leads to the decision to flee and illuminating the role of information flow and collective action incentives in the civilian decision-making process. It also contributes to the literature on the effect of violence on civilian mobilization (Wood 2003; Kalyvas and Kocher 2007; Kocher et al. 2011; Lyall 2009) by showing that indiscriminate violence can have a chilling effect on counter-mobilization if civilians see uprooting as less costly, since insurgents will, in that scenario, loose their civilian support base. Finally, the study develops a mechanism that plausibly can apply to many cases, and in which a purely microlevel, isolated event leads to a shift in the macrolevel strategic setting—contributing to attempts to branch between paradigms that only focus on one of the levels of analysis (Balcells and Justino 2014; Balcells and Stanton 2021).

Future research can expand the theory to further explore the macrolevel impact. Work that utilizes data on warfare can investigate if this effect of violence substantially translates to battlefield outcomes or territorial control. Cross-national work could uncover or confirm the scope conditions of this effect, though that would involve variables that are hard to measure at the cross-national level, such as ingroup cohesiveness and perceived cost of migration.

The Palestinian Exodus and violence in the 1948 war stand at the centre of a salient, heated debate—whether it was the result of a decision by Palestinian communities to migrate as a result of sporadic violence, or a coordinated and organized cleansing campaign. Historical work is at a deadlock, but new research from quantitative social science does il-

luminate the events in the war. From it, it is clear that forced displacement of civilians in the war occurred in the vast majority of cases of uprooted villages, and that this was the result of premeditated strategy at the local and national level, as McAlexander (2022) and Haran Diman (2023) find. However, this and similar studies on preemptive evacuation in the war (Arnon et al. 2022) reveal that preemptive evacuation was also common in the war in some communities that had the social capacity and connections needed to do so.

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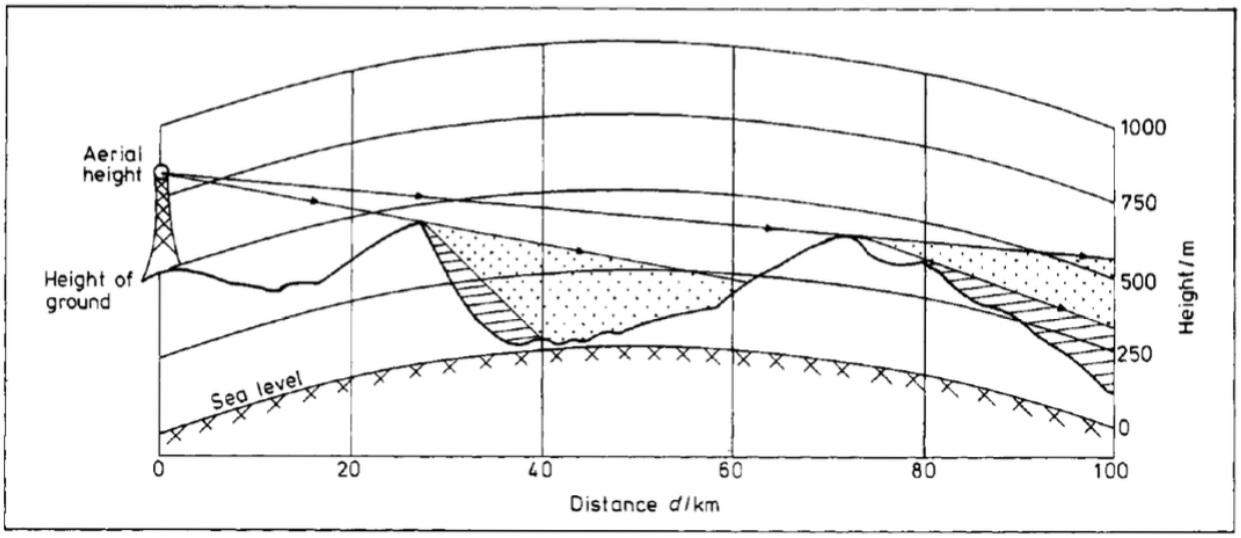
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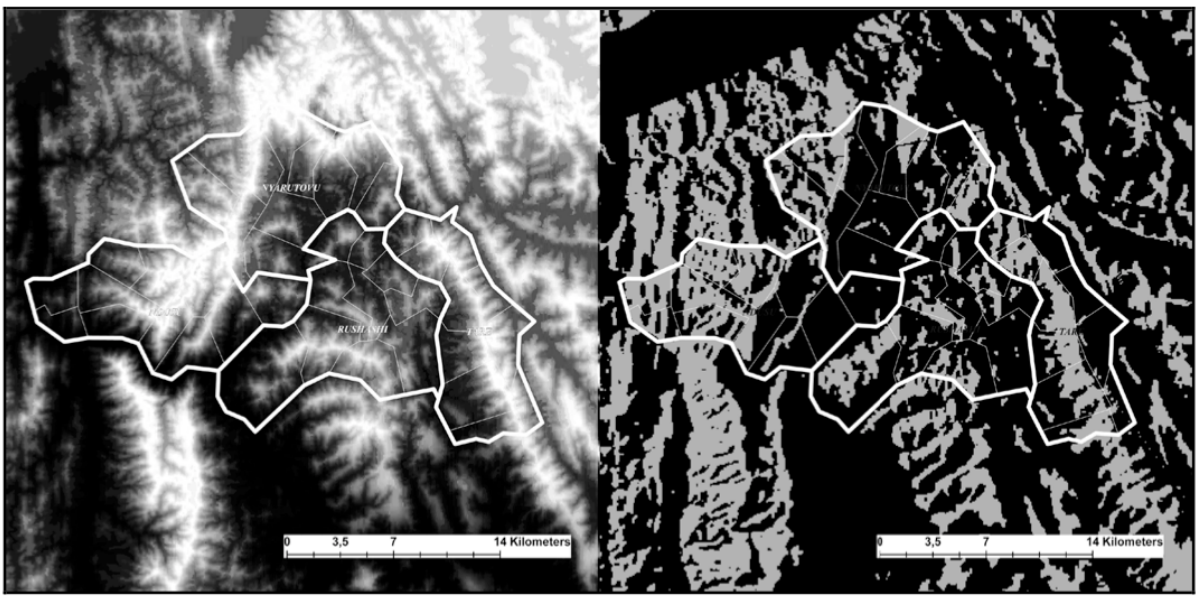
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9 Appendix



Notes: The dotted areas denote reduced reception; the hatched areas show regions of almost nil reception. In mountain to the left, the area of nil reception is caused by the tight angle of refraction required. In the mountain to the right, the area of nil reception is caused by double-refraction off the primary and secondary peak. Figure and description reproduced with permission from Ellington et al (1980).

Figure (10) The Physics of Broadcasting; taken from Olken (2009)



This left picture shows the height of ground, where brighter marks higher altitude. The right picture shows the empirical radio coverage, where grey marks radio coverage. The signal comes from the Mount Muhe transmitter located 30 km to the west (outside the figure). The figures show that within each commune (boundaries in thick white lines), villages (boundaries in thin white lines) to the east of hilltops have low radio coverage due the hilltops in the line-of-sight to the transmitter. In this example, the variation comes from the east-west relationship to the hilltops. In other communes it will, of course, function in other directions.

Figure (11) Topography and Reception Example from Rwanda; taken from Yanagizawa-Drott (2014)

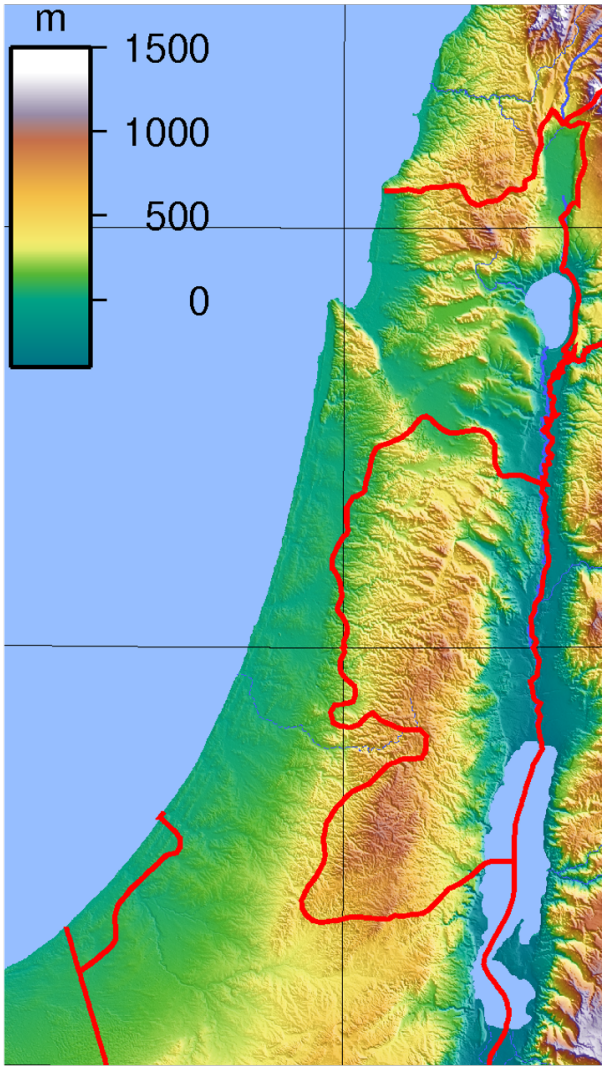


Figure (12) The Topography of Israel/Palestine

Created with GMT from SRTM data by Sadal Melik, free to use under creative commons license.

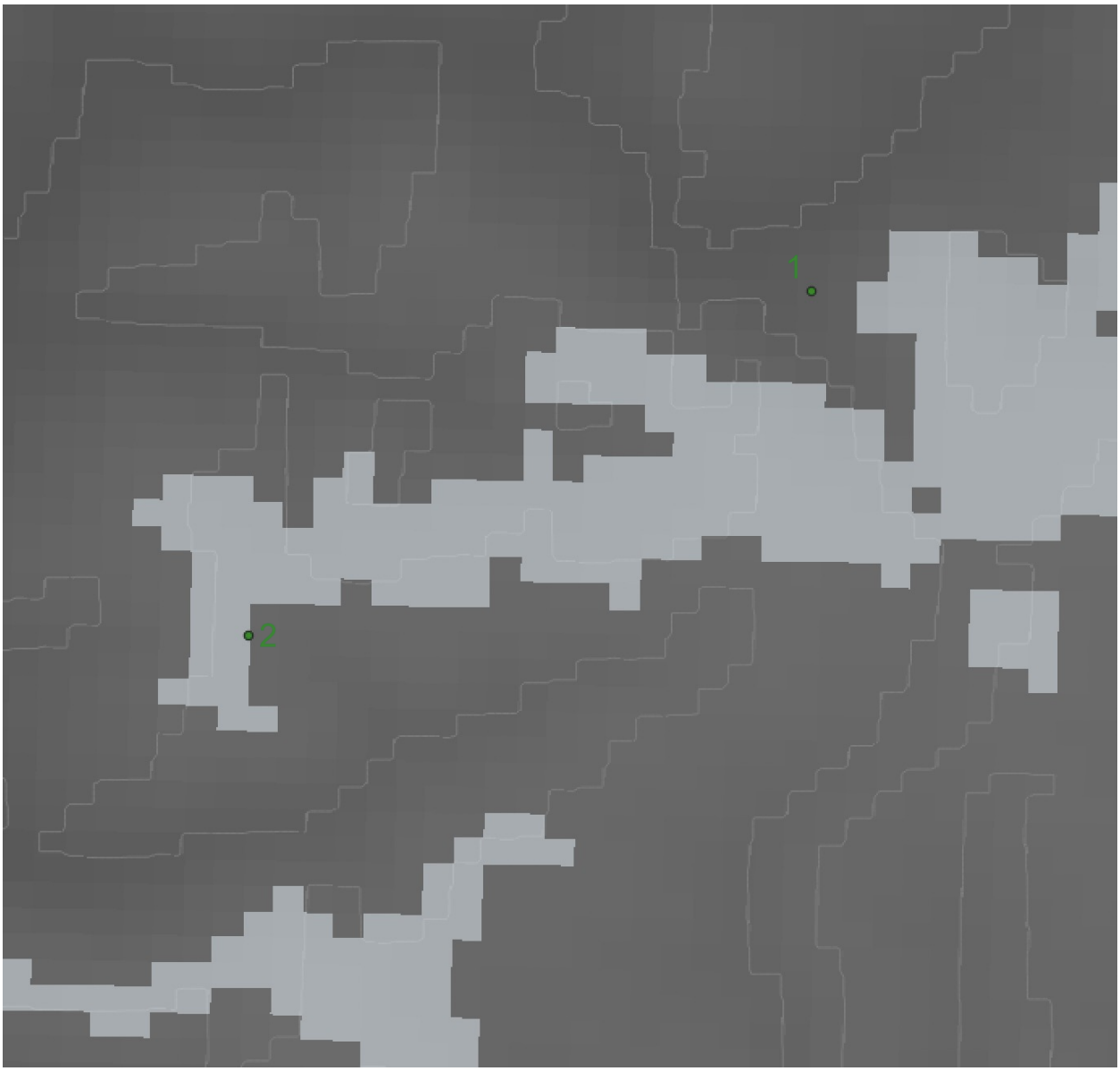


Figure (13) Example of Topography and Reception from the Jerusalem Sub-district. The white area represents areas with radio reception, and the background represents elevation. Village 1 does not have reception, because it is blocked by the mountain it is located on; village 2 is located on the other side of the mountain, and so has reception.

VARIABLES	(1) Radio Reception	(2) Radio Reception	(3) Radio Reception	(4) Radio Reception
Built area	0.000356			
	(0.000629)			
Population 1945 (logged)		-0.0497		
		(0.0899)		
Amount of land			-2.30e-05	
			(3.58e-05)	
Distance to nearest Jewish village				0.0255
				(0.0378)
Sub-district Fixed Effect	Yes	Yes	Yes	Yes
Constant	0.740**	1.095*	0.812***	0.473
	(0.298)	(0.645)	(0.311)	(0.535)
Observations	244	244	199	244

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table (1) Balance Tests in Table Format

VARIABLES	(1) Before DY Flight	(2) Before DY Flight	(3) After DY Flight	(4) After DY Flight
Radio Reception	1.283	-0.492	1.785***	1.645***
	(0.927)	(1.229)	(0.551)	(0.613)
Distance to Transmitter		-0.329		-0.0563
		(0.231)		(0.0492)
Distance to Deir Yassin		0.427		0.100*
		(0.327)		(0.0571)
Elevation (log)		-0.602		-0.631***
		(0.557)		(0.223)
Latitude	0.362	-13.09	-0.0786	-5.657***
	(0.913)	(12.72)	(0.472)	(1.970)
Longitude	0.142	-0.465	4.611***	6.589***
	(1.949)	(2.660)	(1.199)	(1.629)
Constant	-18.48	431.3	-161.4***	-51.26
	(54.69)	(452.1)	(33.64)	(62.24)
Observations	71	64	290	270

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table (2) Figure 5 in Table Format

VARIABLES	(1) Before DY Flight	(2) Before DY Flight	(3) After DY Flight	(4) After DY Flight	(5) Had reception Flight	(6) Had reception Flight
Share of Neighbours with Radio Reception	-2.281	-0.140	3.967***	4.467***	1.136	1.760
	(2.136)	(12.78)	(1.528)	(1.722)	(1.313)	(2.140)
Distance to Transmitter		-0.326		-0.151*		0.199**
		(0.216)		(0.0869)		(0.0997)
Distance to Deir Yassin		-0.260		0.219**		-0.175
		(1.059)		(0.108)		(0.137)
Elevation (log)		-1.005*		-0.418*		-0.574
		(0.569)		(0.246)		(0.865)
Latitude	-0.130	61.18	-0.463	-8.662**	1.767	4.459
	(0.975)	(108.2)	(0.696)	(3.456)	(1.669)	(8.351)
Longitude	0.593	7.670	7.680***	7.916***	-3.471	3.402
	(2.338)	(13.93)	(2.191)	(2.292)	(2.926)	(14.46)
Constant	-18.21	-2,211	-257.7***	-5.159	62.31	-262.4
	(74.66)	(3,923)	(60.04)	(111.2)	(78.24)	(293.3)
Observations	46	39	212	193	78	77

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table (3) Figure 7 in Table Format

VARIABLES	(1) Flight	(2) Flight	(3) Flight
Share of Neighbours who Fled	1.205***	1.508***	1.204**
	(0.245)	(0.458)	(0.583)
Radio Reception			0.0562
			(0.0698)
Distance to Transmitter		0.0174*	0.0140
		(0.00944)	(0.00967)
Distance to Deir Yassin		-0.0200*	-0.0151
		(0.0115)	(0.0123)
Elevation (log)		0.00526	-0.0176
		(0.0498)	(0.0582)
Latitude	-0.00421	0.653	0.395
	(0.0479)	(0.497)	(0.566)
Longitude	-0.0229	-0.376	-0.0619
	(0.157)	(0.500)	(0.621)
Constant	0.894	-7.744	-10.42
	(4.839)	(5.879)	(6.953)
Observations	290	270	270
R-squared	0.312	0.289	0.310

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table (4) Figure 8 in Table Format

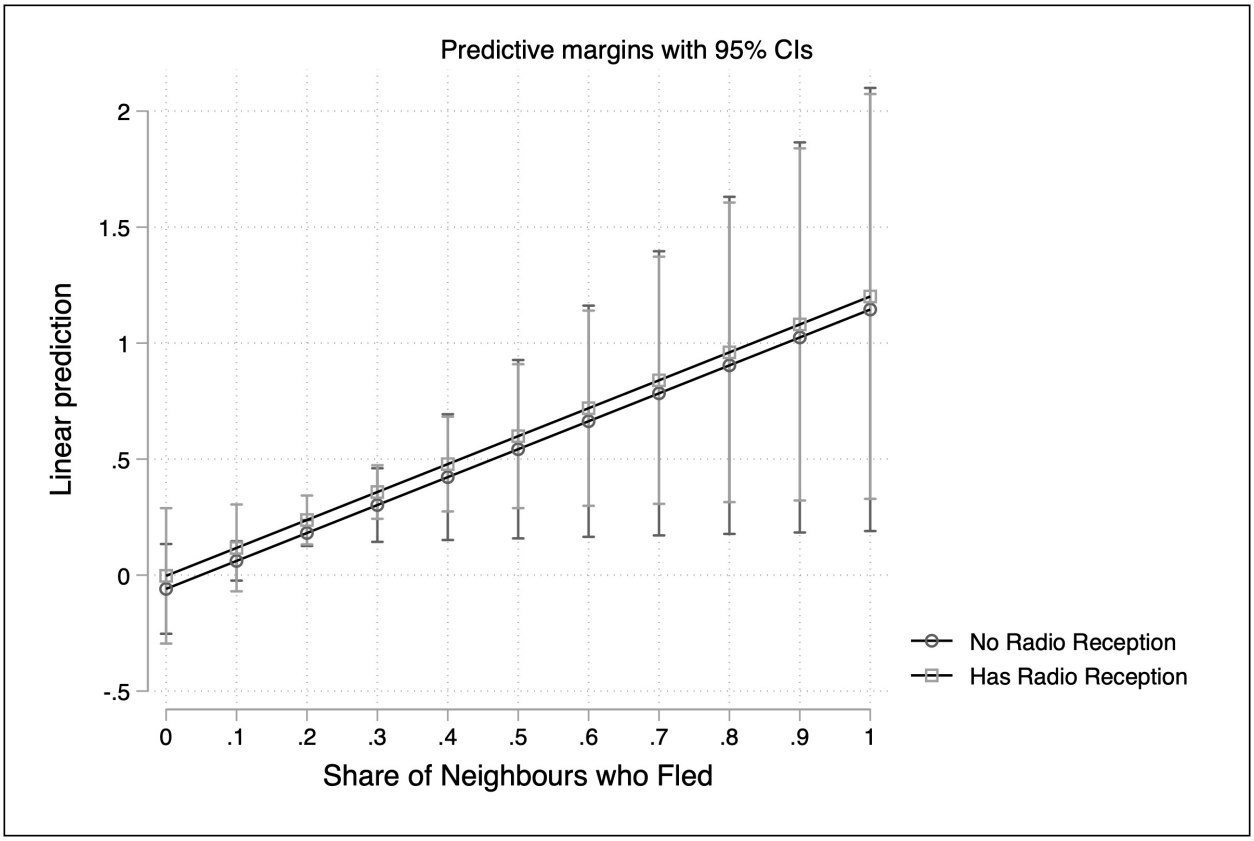


Figure (14) Predicted Probability of Fleeing, by Radio Reception and Neighbours' Flight

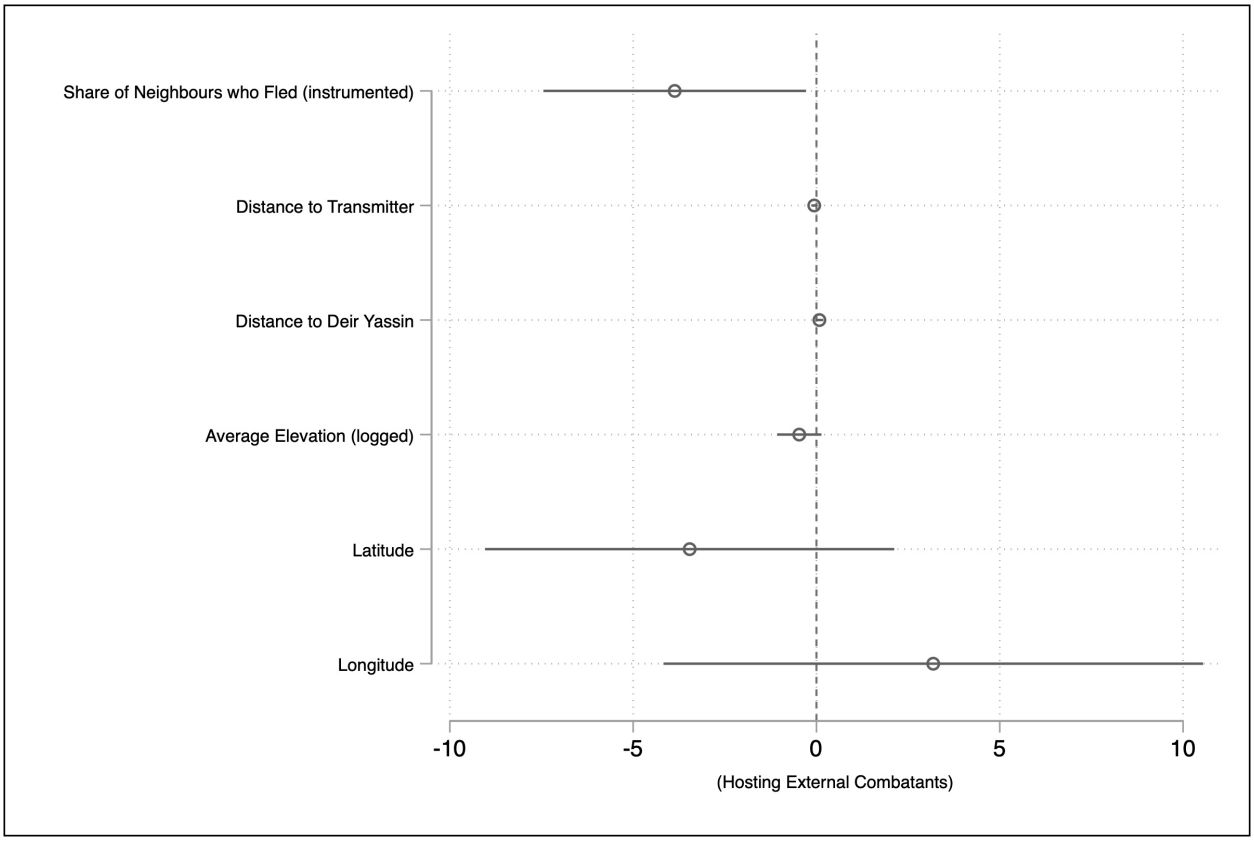


Figure (15) Likelihood of Hosting External Combatants After Deir Yassin among Villages with Radio Reception that did not Flee (logit)

VARIABLES	(1) Figure 5 replication Flight	(2) Figure 7 replication Flight	(3) Figure 8 replication Flight
Radio Reception	0.959***		0.0492***
	(0.138)		(0.0139)
Share of Neighbours with Radio Reception		2.989***	
		(0.314)	
Share of Neighbours who Fled (instrumented)			0.834***
			(0.0928)
Distance to Transmitter	0.0862***	0.0592**	0.00695***
	(0.0247)	(0.0256)	(0.00231)
Distance to Deir Yassin	-0.0491*	0.000946	-0.00469**
	(0.0267)	(0.0292)	(0.00225)
Average Elevation (logged)	-0.367***	-0.184***	-0.0245***
	(0.0459)	(0.0530)	(0.00701)
Latitude	1.331*	-1.130	0.127*
	(0.715)	(0.890)	(0.0773)
Longitude	0.266	2.558***	0.00788
	(0.505)	(0.649)	(0.0757)
Sub-district FE	Yes	Yes	Yes
Month FE	Yes	Yes	Yes
Constant	-53.78***	-58.16***	-4.554
	(19.39)	(20.78)	(2.957)
Observations	5,670	5,670	7,014
R-squared			0.279

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table (5) Models replicated with a month panel dataset, with fixed effects at the sub-district and month level

My Neighbor, My Friend? The Logic of Intercommunal Cooperation During Armed Conflict[†]

Amiad Haran Diman[‡]

August 12, 2024

Abstract

What determines whether the relationship between neighbouring communities will be violent or cooperative after war breaks out? Under what conditions does local interethnic collaboration to resist violence emerge and survives? In this study, I present a model explaining the behaviour of communal leaders and how they change patterns of displacement and create surprising cooperation in the shadow of widespread violence. I argue that they face uncertainty over the probability of the rival taking control, which is what determines the character of intercommunal relations. They thus turn to macrolevel heuristics—signals from the interstate, state, and substate systems—to estimate this probability and guide their decision-making. I test the model using original data on displacement and inter-village mutual protection agreements during the

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Palestinian Exodus (1947-1949). I show that the agreements were signed where the UN partition plan indicated a mutual threat of occupation and repeated interaction and that these stopped civilian displacement on the condition that military occupation happened before national and regional political developments provided new information. I support the mechanism with qualitative case study evidence and counter alternative explanations with extensive robustness tests.

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1 Introduction

In early 1948 Mandatory Palestine, tensions were on the rise. The British announced their speedy withdrawal after the United Nations approved plans to divide the territory into two ethnic states, to be either predominantly Jewish and Arab. Local armed groups were using the relinquishment of authority to violently settle old cleavages that arose from the contentious shared life of Jews and Arabs under Ottoman and British rule; in parallel, national militia leaders were gearing up for the land-grabbing battle that will determine the real borders between the future states. However, contrary to popular perception, many local leaders were instead focusing on peace- and alliance-building, trying to protect their communities by reaching out to their neighbours of the opposing ethnicity. Thus, while some neighbouring communities were already battling, others agreed to refrain from joining the violence and protect each other.

For example, in January 1948 representatives of the Jewish neighbourhood of Jerusalem Giva'at Shaul met with the *Mukhtar* (village leader) of the adjacent Arab village Deir Yassin and signed "a good neighbours pact", in which they agreed to not let the militias form a base in their lands, report their presence if that is not possible, and refrain from harassing village members that leave it. The residents of Giva'at Shaul indeed reported the pact to the district commander of the *Haggana*, the main Jewish militia, who agreed to abide by it as per their request; similarly, the residents of Deir Yassin prevented members of several Arab militias, such as the *al-Najada*, *Mujahidin*, and *ALA*, from entering the village (Gelber

2004).

How do we explain the dynamic that leads to the creation and breakage of such cooperation? As a phenomenon, it is puzzling for multiple reasons. First, classic accounts of violence in civil war discount civilian agency, arguing that the civilians are coerced into cooperation by combatant violence (Kalyvas 2006); what happens when the civilians take initiative remains strikingly unexplored (Schubiger 2021). Second, the behavior of the communal leaders pursuing such strategies is puzzling—in the setting of all-out war, after violence already spiralled out of control. Classic explanations predict opportunism to be abundant and widespread (Fearon and Laitin 1996); these communal leaders forgo any personal benefit from the displacement of the outgroup, and the group-wide benefit of successful ethnic cleansing of the competing group, in favour of nonviolent cooperation. Third, previous explanations of intercommunal cooperation focused on previous intergroup interaction and institutionalized relationships as key (Varshney 2003); in this case study, many of the Jewish communities just newly settled in the territory and civic associations have been absent in many settings, and yet cooperation still emerged—suggesting this cooperation stems from other factors.

Is this example of intercommunal cooperation an anomaly? I would posit that it is not. This agreement is just one observable example of a wider universe of cases of Intercommunal relations in which communities choose to cooperate across group lines to avoid violence. Similar local initiatives, in which communities refrain from working with armed factions and attempt to create "islands of peace", did not only exist in the First Jewish-Arab War but also in other, even very violent, conflicts around the world. Notable larger examples include Idjwi island, in the D.R. of Congo, where residents created such a safe space while the rest of the region suffered from the havoc caused by dozens of militias (AFP 2019); and the community of San José de Apartadó, in Urabá, Colombia, that declared itself neutral in order to protect itself (Burnyeat 2019). Smaller initiatives are less prominent but are abundant; for instance, the village of Kibimba in Burundi brought together different groups and formed a local peace committee at the height of the 1994 civil war, and in Afghanistan

Jirgas are used to resolve local disputes and prevent the use of violence across the rural areas (van Tongeren 2013). Such examples are abundant; Hodge (2022) found extensive evidence of local peace agreements in dozens of cases in her global dataset. These all go to show that peaceful Intercommunal coordination in civil wars is widespread and occurs in many conflicts, even if it captures different observable forms in each of them.

In parallel, this example of Deir Yassin and Giva'at Shaul is not an anomaly in the 1948 Palestine War. Using an original village-level dataset, I show that such agreements were formally institutionalized in over three dozen cases. Thus, I build on classic bargaining and learning models (Reiter 1996) to explain this puzzle with a new theory, described in Section 3 and formalized in the appendix in Section 1. My theory applies to cases in which close intragroup trust means combatants and civilians closely coordinate. In these instances, their unique position gives local civilian leaders the ability to shape the decision-making over one key form of violence against civilians: forced displacement. They use this to either maximize immediate profit by displacing neighbouring outgroup communities or achieve assurances against harm by pursuing *mutual protection agreements*. Whether the relationship between neighbouring communities is characterized by the former violent interaction or the latter nonviolent cooperation depends on one key parameter: the expected *length of future interaction*. If *both* neighbouring communal leaders see a high enough threat of the other side taking control, they will expect a repeated interaction and pursue cooperation; if either leader is certain enough in their ability to hold control of the area throughout the conflict, they will pursue violence. The leaders face uncertainty over this probability and thus turn to indicators from the macrolevel—announcements and news from the interstate, state and substate arenas that hint at the local power balance. Thus, such signals that stem from macrolevel processes can shape microlevel conflict dynamics indirectly, even if the signal does not reflect any tangible policy change, just because of the new information it reveals. This is a new theoretical link between micro- and macro-level approaches to violence against civilians, following on the argument made by Balcells and Justino (2014) about the necessity

of such an approach.

I provide extensive evidence for this model using original data from the 1948 Palestine War, a publicly salient, but scholarly overlooked, case study. Using a variety of quantitative methods, I show that neighbouring Jewish and Arab villages cooperated only on the condition they both expected a repeated interaction: agreements were signed in locations that the UN partition plan indicated will be border areas between the two future states and then survived only in cases in which the opportunity for displacement occurred before new information revealed these areas will be under firm Israeli control. Overall, in the landscape of all-encompassing ethnic cleansing, intercommunal cooperation was the most influential variable in predicting variation in the survival of Palestinian villages. I use a series of robustness tests, causal inference methods, and a nested qualitative illustration, to show that the mechanism I described is behind the results and to support both my assertion that civilians had central agency in the formation and breakage of these pacts, and that prewar interaction cannot explain these. The findings suggest that these were not the result of friendship or goodwill, but rather were ad-hoc rational arrangements resulting from wartime dynamics—in which grappling with uncertainty necessitated nonviolent cooperation. This complements work by prior approaches that connected combatants' uncertainty with an increase in violence (Kalyvas 2006; Costalli et al. 2020). In a civilian-based mechanism, uncertainty has a contrary effect, leading to nonviolence. Some competing theories on the explanation for this finding are still possible; however, it is clear that pacts had an impact on civilian displacement and that this has been shaped by macrolevel changes, and the study launched an exploration into this puzzling phenomena.

The rest of the paper proceeds as follows. In Section 2 I review the previous studies the paper relies on. In Section 3 I lay down my assumptions, theoretical argument and resulting propositions. In Section 4.1 I describe the case study and the relevant background needed to understand it. In Section 4.2 I describe my empirical strategy and expectations and in Section 5 I detail my data sources. In Section 6 I present the results of the statistical

analysis. In Section 7 I describe the additional supporting evidence that is available in the appendix. Finally, in Section 8 I conclude with the scholarly and practical implications of the results.

2 Violent and Nonviolent Intercommunal Relations in War

2.1 Literature on local peace initiatives

In the last decade, qualitative scholars of peace studies, as well as numerous practitioners, have increasingly advocated for a bottom-up approach to conflict resolution that focuses on local actors and their initiatives. As Autesserre (2021) asserts, "grassroots efforts, bottom-up conflict resolution, and local community resources can build lasting, resilient peace". This approach is not new and follows what Mac Ginty and Richmond (2013) calls "the local turn" in peacebuilding, which argues that "individuals and small groups can eke out spaces of tolerance and conciliation in conflict-ridden societies" (Mac Ginty 2021). However, these far-reaching claims were not tested with rigorous quantitative analysis. We know that these initiatives are beneficial and are normatively superior to war, but we do not know if they work, and what logic leads to both their creation and their success or failure. Kaplan (2018) did study the power of civilian agency and the ability of civil communities to restrict violence but focused on other important strategies and not on inter-group relationships. Research on civilian agency during war is surging, but many "influential patterns of wartime civilian agency remain strikingly unexplored" (Schubiger 2021). Thus, the logic that guides civilian non-violent action still needs more exploration.

A limitation of the local approach to conflict prevention is that it ignores how microlevel actors and initiatives are influenced by the macrolevel. While the literature is overly optimistic about the ability of local actors in changing the macrolevel conflict outcome, it does not discuss enough how their decisions are shaped by the macrolevel strategic landscape and changes in it. More attention to the strategic foundation of and link to the macrolevel in civilian actions are needed in the growing and expanding literature on civilian agency in

armed conflict (Hallward et al. 2017) and the literature on local conflict prevention. The whole literature on civil wars tends to cluster into camps that exclusively focus on just one level of analysis, while the reality is far more complex. As Balcells and Justino (2014) argued, "Establishing a theoretical link between macrolevel political processes and local conflict dynamics is therefore crucial for gaining a better understanding of key outcomes such as the outbreak, duration, and eventual cessation of violent conflict" (p. 1346).

2.2 Literature on alliance formation in civil war

Studies on alliances in civil wars abound, but they tend to focus on *allegiances*—pacts between armed groups in which they agree to coordinate and fight together in the war (Christia 2012; Bapat and Bond 2012; Zeigler 2016; Gade et al. 2019). This literature also mainly focused on why and how these alliances are formed. Thus, the civil war pacts that this significant literature are inherently different to those I'm describing. It explains the creation of agreements between aligned armed groups that they use to coordinate their use of violence; it ignores the outcome of agreements between rival civilian communities that are used to prevent violence. The literature on alliances in civil war focuses on armed groups that are already aligned as the main actor, while I focus on civilian communities of rival groups; it describes the use of pacts for the creation and organization of violence, while I show that they can be used to avoid its use; and it explains the process that leads to the creations of these pacts, while I mainly emphasize the survival of the pacts and their impact on civilian victimization.

These differences mean that the logic that underlies the two types of pacts is different and that the civilian non-aggression pacts are a separate phenomenon that deserves attention. Armed groups have greater mobility and a stronger ability to try to protect themselves by force than civilian communities. This allows them to emphasize their over-arching goals, such as the success of their outgroup in the war and personal material benefit from it, over their concern for their short-term survival. Pursuing those goals leads the armed groups to use pacts to organize violence with coethnic groups. In contrast, concerns over survival, which is

more prevalent among civilians, means that they are more susceptible to insecurity—which will lead them to pact with outgroup members to prioritize their survival over their groups' goals.

Similarly, an armed group or the social group at the macro level can increase its security by strengthening—utilizing increased mobilization, recruitment, and arming. This leads to the security dilemma, which incites mutual escalation of the conflict (Posen 1993). Civilian communities in a large-scale intra-state war usually do not have that ability, because they are, by definition, not fighters and will struggle to form a force significant enough to resist an organized offensive by a large armed group. While they can participate in low-intensity communal violence, once total war breaks out and large and organized armed groups are formed, the possibility of independent self-protection is lower. And while combatants from coethnic armed groups can provide some protection to villages, they cannot do so consistently in all areas and at all times—which creates variation in the level of insecurity during the conflict.

2.3 Literature on interethnic cooperation in armed conflict

Two influential explanations of intergroup cooperation to moderate violence that I rely on are those supplied by Fearon and Laitin (1996) and Varshney (2003). However, both characterize a different process and setting that is not identical to communities that cope with macrolevel violence. Both offer valuable insight but can not fully explain the phenomenon I focus on, of Intercommunal coordination in the shadow of violence.

Varshney (2003) correctly points to the importance of prior relationships and existing networks in allowing intergroup cooperation to exist. I accept that these have a role in providing the foundation for pacts, but I think we can go beyond these in explaining intergroup cooperation—arguing that the pacts are induced also by separate macrolevel wartime dynamics. Some form of previous contact between the groups is necessary and almost always exists, even if not in the institutionalized way that Varshney (2003) describes. This prior relationship is necessary for the creation of the pacts, but it does not sufficiently explains

it. In Section 4.2 and in the appendix I describe the empirical devices that allow me to rule out the impact of pre-war variables and selection into pacts, and thus isolate the role of macrolevel insecurity in their creation from the impact of prior relations.

The theory of Fearon and Laitin (1996) has been highly influential in studies of ethnic conflict. I share their premise that ethnic conflict is rare and that there is an exacerbated focus on explaining violence, while cases of cooperation are ignored. I also agree with their argument that opportunism has a central role in inciting violence and the breakage of war. However, similarly to Varshney (2003), they describe an inherently different process that chronologically precedes the dynamic that I investigate. Both studies focus on how local groups can restrain communal violence from spreading and spiralling towards an all-out bloody conflict. I focus on communities that are coping with a setting in which the war already broke out—opportunism and outgroup hatred are already the prevalent norm, and large armed groups are already formed and leading a violent struggle for territorial homogeneity and ethnic domination. These groups live in the shadow of violence and are trying to prevent it from trickling down—not vice versa.

2.4 Literature on violence against civilians

Another promising avenue to explore the puzzle concerning the efficiency or failure of non-aggression pacts, and the overall logic that guide them, is the literature on violence against civilians. However, it often ignores cases of cordial cooperation and instead focuses just on contention. This is because the absence of cleavages and the absence of violence are hard to measure; they may even seem as conceptually non-distinctive. I argue that intercommunal coordination and non-violent outcomes are distinct and can be studied separately. In other words, places that did not exhibit particular microlevel cleavages and then violence are interesting as the means to study the dynamic of violence itself, since it is necessary to observe them to overcome problems of selection bias (Kalyvas 2006); but they are also independently interesting as a phenomenon in and of itself. These are not only cases in which there was no initial contention and less violence, but rather a surprisingly friendly

relationship and unlikely survival stories that are worth studying separately because they are the exception in many violent conflicts. The current literature showed that civilians can work with armed actors, and studies why civilians would join armed organizations; it ignores how civilians work together to avoid conflict and manage to collectively not cooperate with the armed actors. Studying islands of peace and deliberate attempts by civilians to coordinate with their rivals in order to prevent conflict is necessary if we want to understand civil wars.

Therefore, I focus on these studies and then base my theoretical framework on reversing the logic developed in the literature on violence in civil war. For example, multiple extensive studies emphasized the positive relationship of previous microlevel local cleavages (Kalyvas 2006), political competition (Steele 2017), and political rivalry (Balcells 2017) with violence in civil wars, depending on other conditions, such as the stage of the war and informational constraints. Similarly, I argue that the opposite is also true: microlevel cooperation can limit the level of violence in the war. I then build on studies that focused on informational constraints (Rathbun 2007; Costalli et al. 2020; Uzonyi 2021) to explain why the formation of, and compliance with, the pacts will vary across space and time. But instead of looking at how armed forces result in violence and leaders turn to conflict due to uncertainty, I argue that the civilian population can face it as well—and uses non-violent interethnic cooperation to cope with it.

3 Theoretical Framework: Macrolevel Heuristics and Microlevel Decision Making in War

The theoretical argument is stated in its fullest form at the formal model in Section 1 of the appendix. The model is simple, and the results intuitive, but it aids the theorization by clarifying the key assumption and presenting the logical steps more lucidly. I argue that the decision over how to handle the local enemy population is delegated to the domain of local ingroup leaders. In the model, I explain the behaviour of such leaders by showing that a violent strategy of forced civilian displacement is optimal if the likelihood the out-group will

take over is sufficiently low, while a non-violent strategy of cooperation is optimal and feasible when such is sufficiently higher; when both neighbours expect a high enough likelihood the other will take over, cooperation will emerge and survive. Thus, I conclude that variation in local cooperation and violence at the beginning and during the war is explained by macrolevel signals from which the leaders deduce the probability of enemy takeover. I expand on the key points below.

3.1 Step one: coordination between combatants and communal leaders

Most theories on violence against civilians in civil war focus on logics that are grounded solely on the behaviour of combatants or armed groups. This is understandable since they are the actors that carry out the violence in practice. However, I argue that a significant amount of local variation in violence originates from the influence of local ingroup civilian leaders on the combatants. The main objective of armed groups is territorial control, so will take over enemy villages no matter what the opinions of their civilian counterparts are. But they are much more ambivalent about what happens to the enemy civilian population, compared to the strong preference of civilian leaders about what happens to their neighbours. Most importantly, combatant leaders are constrained by physical distance from the villages before and after they take over it. The combatants arrive at the local level to occupy the territory and defeat enemy forces but then have to go on to fight in other areas since armed force is rare and human supply for combat is scarce. This leads to two results. Firstly, their lack of local presence before occupation means that they are relatively uninformed about the enemy villages, and rely on local ingroup members for information on the behaviour and positioning of their outgroup neighbours. Secondly, their lack of presence after the occupation means that if they forcibly expel the civilian population from the enemy villages, they would not be able to stay, inhabit the newly acquired territory, and prevent the return of the outgroup civilians. Given high ingroup social cohesion and if communal leaders have strong enough political power, the combatant leaders will resolve these two issues by delegating the decision over the displacement of the rival civilians to civilian leaders from local ingroup communities.

3.2 Step two: communal leader incentives

This gives communal leaders significant agency and influence, which is why they should be looked at in order to understand patterns of microlevel violence and cooperation. These leaders have a non-negligible payoff from displacing the neighbours. They benefit privately because their community receives material gain from the loot from the villages, in the form of fertile land and built houses which they can resettle; and by receiving non-material benefits shared with the rest of the wider national group, which stem from the contribution of population displacement to the goal of the war of creating a stable ethnic state in which their group is dominant in the long term. In other words, both greed and grievance incentivise them to pursue displacement. However, they assign a high cost to the displacement of their own community and prioritize protecting it from violence. Material loot, particularly land, cannot be enjoyed if one is uprooted himself; and uprooting means that the community is disbanded and the leader loses the power the local network gives him. This means that the payoff from violently displacing the neighbour is smaller than the possible cost of being displaced. The leaders exploit the power given to them by their influence on combatant leaders to resolve this tension. It gives them leverage which means they can cooperate with the neighbouring community, promising to protect it in return for their own protection; alternatively, it gives them the ability to take a risk and push for the violent displacement of the neighbour.

3.3 Step three: grappling with uncertainty

The key parameter that guides their decision-making is the perceived likelihood of enemy forces taking control of their villages. If that is very low, which translates to a low discount factor in the formal model, it means that the leaders can disregard the possibility of their own community being displaced because they are in essence playing a one-shot game: they will pursue violence and with that, the interaction with the rival will be over. However, if they think the possibility of enemy territorial control is very high, the situation is substantially

different: it means that they face a very real risk of their own displacement, which they can only mitigate by cooperating with the neighbour. Such cooperation is sustainable because the game is inherently seen as repeated, with both sides exchanging control over the territory and having to decide what to do with the civilians, and with an uncertain ending: they know that the war will end and with that, the window for displacement, due to a lesser degree of armed mobilization and a different normative setting, and that is what makes cooperation costly; but they do not know when will be the last iteration of the game during the war since the rival can take over at any time, and so defecting from the agreement is not optimal. The cooperation inherently encompasses a grim-trigger strategy because violent displacement cannot be undone and will lead to a lack of cooperation by the rival indefinitely. To summarise, if the probability of the rival taking over is sufficiently low the leader that can move first will be playing a one-shot game and displacing the neighbour will be the only optimal and feasible strategy; if it's sufficiently high the leader will be playing a repeated game in which non-violent cooperation is both feasible and optimal.

3.4 Step four: macrolevel heuristics and the emergence of cooperation

Therefore, in order to explain local patterns of displacement and cooperation, we need to understand how communal leaders determine the likelihood of occupation by rival forces, which shapes the local strategic setting and thus decision-making. Every leader initially holds some belief about this parameter, which is constructed by the sum of all prior private signals it received, such as random natural variation in the local group strength and the village's position. However, I posit that beyond such noise, noticeable patterns in intercommunal relations are created by salient, exogenous, and public signals from the macrolevel that create spatial variation in this perceived likelihood. These are the result of widespread news about political developments or policy announcements which happen at the interstate, state, and substate levels. All leaders observe these and then update their prior beliefs accordingly. Even if such political developments are just symbolic, are never implemented, or have no tangible direct impact, they can still provide useful information. Importantly, the signal can

indicate different levels of enemy threat to different leaders, creating variation in the strategic choice. If the updated belief is that the probability of an enemy takeover is sufficiently low, the leaders would pursue violence; otherwise, they would pursue cooperation. Thus, if the signal indicated to both that an enemy takeover is sufficiently likely, cooperation would be possible—because the mutual threat would be analogous to a repeated interaction. This leads to the first theoretical proposition (P1).

P1: *Microlevel intercommunal cooperation emerges when both sides estimate a repeated violent interaction with the other is sufficiently likely.*

3.5 Step five: new information and the breakage of cooperation

After receiving the signal and once the war starts, the leaders pursue their chosen strategy. If they choose the violent option, it is in their interest to indicate so to their neighbours—since that will encourage them to leave and they anyway do not pose a threat. Once displacement is carried out the leaders can not turn to cooperation, because of the grim-trigger strategy that sustains the cooperation and since they lost the counterpart with which they can work. If they chose a non-violent strategy, they are also incentivized to start cooperating immediately so if the rival will be the first to take over it will be stopped, and so the leader would know it should stop violence from happening if its own forces take over first. However, in the case of a cooperative strategy, defection and a switch to violence are possible—for as long as the ingroup combatants will return to the local region. However, the armed groups have no incentive to supply troops for the displacement if they already secured territorial control in the area in the past; and communal leaders would only defect from the agreement and deviate to violence if they receive new information that changes the original perception of threat that lead them to cooperate. Thus, new salient wartime signals that strongly indicate that it is unlikely the rival can take over will break down cooperation if they are received before the last time ingroup combatants take over the enemy village, but would not have an effect otherwise. In other words, cooperation is feasible only because the ending of the game is uncertain, despite it being bound to arrive due to the likely end of the war; new

information that indicates the game is at its end will lead to defection from the pacts, but only if the game has already ended—which happens if no combatants will return to the region. This leads to the second theoretical proposition (P2), which mirrors P1:

P2: *Microlevel intercommunal cooperations breaks down when one party estimates that the ability to inflict violence is no longer mutual.*

In the next section, I will begin demonstrating how this model plays out in the empirical reality. I focus on the case of violence and cooperation between Jews and Palestinians during the 1948 war. I describe the necessary historical background briefly and then describe the most salient signals in the war, which according to my model should influence variation in patterns of local cooperation and displacement, and describe my empirical expectations. I then turn to the measurement of these variables and tests of these claims.

4 From Theory to Practice

4.1 Case Study: The First Jewish-Arab War and the Palestinian Exodus, 1947-1949

The Palestinian Exodus is at the centre of extensive historical research (Morris 2003; Pappé 2007) and was monumental in shaping the Israeli-Palestinian conflict (Nets-Zehngut et al. 2015). It also includes many promising avenues for empirical research, since microlevel data from the war can be supported with high-quality pre-war data from the British mandatory government and post-war data from the Israeli state. However, the war only recently began to receive attention from political scientists (Muchlinski 2021; Arnon et al. 2021; McAlexander 2022; Haran Diman and Miodownik 2022).

The war started over the growing strain between the Arab and Jewish populations in Mandatory Palestine, which became more severe after Jewish migration increased due to the Holocaust. The United Nations decided to end the mandate and split the land into two independent states. Almost immediately after the separation plan, and the British withdrawal, were approved in November 1947, hostilities broke out across the country. Both

sides organized multiple armed groups and started fighting to maximize their territorial control, knowing that the outcome of the war will set the borders of the new states. On the 15th of May 1948, Israel declared independence, after seizing central parts of the territory and occupying, and sometimes displacing multiple Arab villages. The ensuing war included quick conquest of much of the land, leading the Israelis to hold 78% of it. The period before the declaration is known as the 1947–1948 civil war in Mandatory Palestine, while the period after it is known as the 1948 Arab–Israeli War. These two phases collectively are known as the first Jewish-Arab war, and the displacement in them is known as the Palestinian exodus.

The war is a particularly good exploratory case study for my theory because there is abundant historical evidence that the uncertainty over the prevailing side in the war was widespread among both Jewish and Arab groups (Tal 2004). The Arab population was larger and had the support of neighbouring states, but the Jewish forces were more wealthy and better organized. Jewish and Arab villages were scattered across the territory, not knowing what the future harbours with both sides attempting to violently cleanse areas from members of the opposing ethnicity.

I use "Arab" and "Jewish" to describe the two warring sides in the war before independence was achieved since no state was created and the Arab side included both local Palestinians and soldiers from neighbouring Arab states. I use "Israeli" to describe the dynamics after the independence. This follows the approach of McAlexander (2022). There are many conflicting approaches to how to classify the war. Some scholars follow an approach promoted by Palestinian and some Israeli academics and treat it as an example of settler-colonialism that involved substantial ethnic cleansing. In the Israeli discourse it is seen as a war of national liberation, "The Independence War". I avoid entering this debate, treating it just as an example of an ethnic civil war, in which two or more groups easily identified fight over territorial control. It was initiated by colonial withdrawal, which makes it similar to cases of post-colonial secessionist wars, and its ethnic dynamic makes it inherently different from cases of political, ideology-based, and civil wars. However, the theory in its parsimo-

nious form described above could travel to a variety of settings—the basic model that links uncertainty to coordination aimed at conflict management follows a simple rational logic and could be applied to many cases. In the next section, I describe how I use the unique dynamics of the First Jewish-Arab War to operationalize uncertainty, and these predictions and tests rely more closely on the characteristics of ethnic civil wars.

4.2 Wartime Macrolevel Heuristics and Empirical Expectations

To test proposition 1, on the creation of mutual protection pacts based on a salient macrolevel signal, I use a natural quasi-experiment previously utilized by McAlexander (2022) and Haran Diman and Miodownik (2022). Both of these studies focused on the lines drawn by the United Nations committee and adopted by the general assembly in November 1947, which divided the land into two ethnically identified states in the territories under British mandatory control and sparked the beginning of the war. They showed that it is exogenous to the local characteristics of villages—since Britain refused to share the data with the committee, it remained oblivious to the situation on the ground and drew the lines randomly when it came to small villages. This is supported by the evidence presented in these studies, which are replicated in the balance tests depicted in Table 2 in the appendix, showing a null association between distance to the line and pre-war village-level variables. The lines were also never implemented in practice at any stage of the war, but rather just existed in a declarative manner. Thus, it affected the decisions of leaders and citizens but after a few months became irrelevant. All non-aggression pacts were signed in November and early December of 1947, when the partition plan was still highly salient.

I argue that villages located right near this border would be uncertain about who will control the territory they reside on. Proximity to the border will be associated with an obscure future of the territory because the lines were not specific enough to clarify the location of small villages positioned right next to it, and because armed forces were more likely to violate it and occupy areas that were designated to the rival state in areas that are close to the border. Thus, villages that are located deep in territory that is designated to their

ethnic state will feel much more secure than villages located right next to the partition line. If you are leading a Jewish village deep in territory that the partition signalled will belong to the Jewish state, and vice versa, you would assign a very low probability to the opposing group taking over your village; if your village is located right next to the partition lines, you would assign a high probability to suffering from violence in the future and for being in continuous interaction with nearby neighbours, with complete uncertainty on who will be the side to be the last to take over. These lines are also important because they would equally affect both the Jewish and Palestinian villages next to it; if only one side expects a continuous interaction, the confident villages won't bother signing the pacts—but near the partition borders villages of both ethnicities would feel insecure. I will thus treat proximity to the partition plan lines as a useful and salient macrolevel signal and test the association between it and pact formation.[1] Thus, proposition 1 (P1) has a matching empirical expectation:

H1: *Villages close to the borders of the UN partition plan will be more likely to sign mutual protection agreements.*

Following this analysis, my main dependent variable will be a non-lethal but continuous form of civilian victimization: forced displacement. I only look at the villages of the losing side in the war that were eventually occupied. This makes sense because of the endogeneity between pact signing and fear of occupation—villages that signed pacts were probably at greater risk of occupation, so I only focused on villages that were occupied. This also allows me to isolate the counterfactual better—the focus is on the decision of whether to displace a village's population and how it is shaped by pacts, and this only existed in villages occupied by the enemy forces; looking at villages that never were taken over by Jewish forces, in areas that later became the Palestinian territories, will make my N larger but would not make sense or contribute to this analysis. As in my model, I assume that the decision of whether to let them stay in the village or to forcibly expel them is made at the time of the occupation; this decision is collective for all the inhabitants of the village; and it is then

[1]The original map that was published as part of the plan can be found in Figure 2 in the Appendix.

fixed for the duration of the war. These premises have a basis in the empirical reality of my case study, which allows the testing of these hypotheses, but in other conflicts, the situation could be more fluid and thus more complex and hard to study. Overall, I argued that these pacts are not based on low hatred or significant compromise, but are a tentative insurance policy for villages that see a high likelihood of occupation by the rival. Thus, their impact on displacement would be conditional on the existence of a shared perception of the strategic situation, and would not appear unless new information that changes this is accounted for.

The decisions over displacement are made when the village is first occupied and there is substantial variation in the timing and method of occupation. Thus, some villages are occupied when the updated belief matches the first salient macrolevel signal, while others are occupied when new strong signals indicate that it is unlikely that the rival take control and that the game is now nearing an end, allowing for defection. In the former case, the pacts will be kept and the villages will be protected; this is because the two villages are still uncertain when the interaction will be over-as long as the rival is a viable threat, it would be able to punish defection and cooperation is optimal. In the latter case, with new information that will indicate the rival cannot take over, cooperation will break down. I focus on two types of wartime signals, which can lead to the end of cooperation and both have matching hypotheses—corresponding to the empirical implication of the theoretical proposition 2 (P2).

Firstly, I separate between villages which were occupied at the beginning of the war, when the original beliefs still stand, and more progressed stages in the war in which the situation has already been clarified and new information revealed that cooperation is not anymore optimal. In the case of the First Jewish-Arab War, this distinction is particularly clear before and after the Israeli declaration of independence in the midst of the war, when it became apparent that the Jewish forces are prevailing and succeeding in forming a consolidated state. Before the declaration, it was unclear if the position of the Jewish forces is tenable and if it will be able to establish a sustainable independent state. The declaration then signalled that the national leadership believes it is actually possible to create a separate state and that this

is the goal it is pursuing. Thus, I expect that villages occupied before the declaration will be more likely to survive if they signed mutual protection pacts, but that this pattern would not persist after the declaration because the Jewish communities will feel more confident and less dependent on their Arab neighbours with this new information. I do not expect an immediate change, since trends in the war are more slow-moving, but there should be a clear difference in compliance with the pacts between villages occupied before and after the declaration.

H2a: *Mutual protection pacts will be associated with a lower likelihood of displacement before the declaration of independence, but not after it.*

Secondly, another macrolevel heuristics is the regional power dynamic at the time of the occupation. If the community whose co-ethnics are the occupying power will feel like the region is secure and that occupation by the rival is unlikely, it will have no reason to abide by the pact's rules. However, if it feels that the control of the territory is not firm enough and that the rival might still push back the forces and occupy the village, then it will have the incentive to pressure the armed forces to allow the neighbouring village to stay with the hope that this will be reciprocated. In my case, I distinguish between villages occupied as part of a normal, low-intensity battlefield advance to those occupied during an organized regional offensive, battlefield advances that are named and declared as cleansing operations. This allows me to exploit the difference this causes in how secure the community will feel, and so in whether it fulfils the conditions of the pact. Once the neighbour is occupied and the decision has to be made to actualize the cooperation, it can either be before or after the military declared a cleansing operation in the region, which is a strong indication the rival is unlikely to take over.

H2b: *Mutual protection pacts will be associated with a lower likelihood of displacement when a village is occupied during a normal battlefield advance, but not when a village is occupied when a regional cleansing operation was declared.*

This empirical strategy cannot show a definitive causal relationship between macrolevel

signals and intercommunal coordination. However, it can show a consistent relationship between variation that originates in key salient signals and the formation and breakage of mutual protection agreements, which are a proxy for intercommunal nonviolent relations. It can also show that the ex-ante predictions of the theoretical framework are consistently and repeatedly supported by the analysis of the data. Competing explanations would find it hard to explain the entirety of the observations convincingly. I then also empirically rebuttal the two central challenges of the theory, agency problems and selection into pacts, as well as show that the results are robust across various empirical models and when various causal inference tools are used. Finally, I show that the predictions of the framework, but not those of competing explanations, are supported by evidence from two case studies blindly picked based on the empirical model.

5 Data

5.1 Forced Displacement

The predominant unit of analysis in this study is the locality, focusing on Arab villages and the impact of non-aggression pacts on the outcome of their occupation. I used the Village Survey files (1945), a census carried out by the British colonial administration, to locate all permanent Arab villages that existed before the war in areas that the Israeli state-controlled after the 1949 cease-fire. I then used data from the Israeli Central Bureau of Statistics to find all the Palestinian villages that exist in Israeli land, and thus all the villages that were allowed to stay and survived the war. This created the basis for the dataset, which includes 459 Arab villages, and for my main dependent variable, *survival*, that is also graphed on the left side of Figure 1. 97 villages survived the war, while 362 villages were uprooted. I also used data from the historical research of Morris (2003), compiled and coded by Abu-Sitta (2010) to find the reason that every displaced village was uprooted. Morris classifies six main causes; two include the use of direct violence (military expulsion or direct military attack) while the others are characterized by preemptive evacuation (collective flight before

the violent occupation; see Arnon et al. (2021) for a similar typology). This was used to create the robustness tests detailed in the appendix. 280 villages were violently displaced, while 82 were able to preemptively evacuate.

A table summarizing village survival or displacement over villages' pact signing and across the four settings described below can be found in Table 1 in the Appendix.

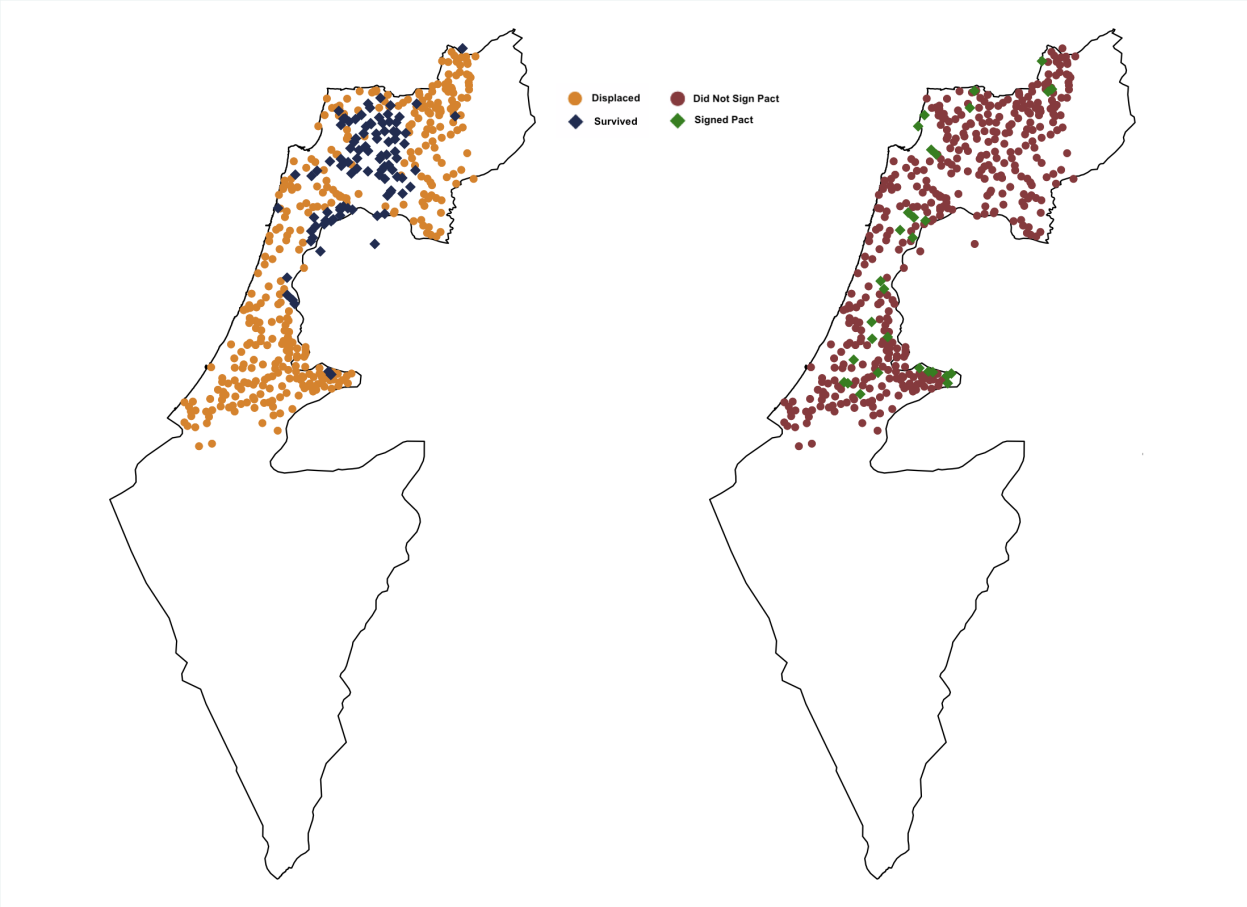


Figure (1) Spatial Dispersion of Palestinian Villages in the Dataset, Grouped by the Dependent and Independent Variables.

5.2 Mutual Protection Agreements

My main variable of interest is intercommunal coordination. However, this includes a universe of diverse cases of different forms of cooperation, many of which are hard or impossible to quantitatively observe. Due to that reason, I focus on formal mutual protection or non-aggression pacts as an empirical device that allows the observation of intercommunal coop-

eration by focusing on an observable form of it. Data on non-aggression pacts was compiled from the list made a research team led by anthropologists Eleonore Merza and Eitan Bronstein Aparicio from the Israeli NGOs Zochrot and De-colonizer, which are dedicated for the documentation of the Palestinian Exodus. The researchers started with a list of more than a hundred of cases in which there was some initiative against violence that was compiled by Azoulay (2014), an American historian, and then found the cases in which there was a clear reciprocal pact. These are, in their definition, "mutual initiatives by neighbouring Jewish and Palestinian communities to resist the violence led by their respective national movements" and in them, they "reached agreements on various levels to prevent violence and/or warn against the arrival of armed forces that might attack the neighbouring community". While the long list includes many different forms of interethnic cooperation, this list of non-aggression pacts was refined by the team to include only similar cases of signed agreements. All of the pacts followed this characterization and were signed in the first two months of the war. This data was integrated into the dataset and formed the main independent variable, *non-aggression pacts*, which is displayed on the right side of Figure 1. 30 Palestinian villages formally signed non-aggression pacts with their Jewish neighbours, while 429 did not do so.[2]

5.3 Salient Macrolevel Signals

To operationalize the wartime signals described in H2 I use data compiled from the seminal research of Morris (2003). First, I found in his research the exact date of occupation for every village; for over a hundred villages for which data was missing, I used case-specific historical records to fill the gap. This was used to determine if a village was occupied before or after the Israeli Declaration of Independence on the 14th of May 1948. The declaration signified an important shift in the war, since it clarified that the Jewish forces are not being overrun by the Arab militaries as some predicted, but rather successfully taking over vast areas from the leaving British, basing in them sustainable territorial control, and founding the state on them. Therefore, Jewish communities would face much lower insecurity after

[2]The original list can be found at www.de-colonizer.org/map.

the declaration. 128 villages were occupied before the Declaration of Independence while 307 were occupied after it.

Secondly, I used data from Morris's records to detect the Arab villages were occupied as a part of a nationally-organized, region-wide military offensive by the Jewish forces. This was a common tactic that was used to achieve firm territorial control in an area by channelling forces from across the country to it and focusing all effort there. While near villages that were occupied during a regular, slow armed advance there is a significant risk of pushback and re-occupation by the rival, in villages occupied by such a regional offensive this risk is lower and the future control of the Jewish forces over the area is much more certain. 142 villages were occupied without the use of regional offensives while 317 were occupied with them. Both of these variables are displayed on the maps of Figure 2.

5.4 Controls

I also controlled for multiple locality-level pre-war variables that may confound the relationship between non-aggression pacts and the outcome of occupation. To account for geographic factors and important spatial variations such as proximity to key cities, UN allocation of the land, distance from military headquarters, and distance from Jewish villages, I controlled for the latitude and longitude of the villages. To account for collective action problems that might arise from a large population and thus impact both pact-signing and displacement, I control for the log of the pre-war population of the village. And finally, to control the attractiveness of non-transferable village resources that will impact both Arab fear of displacement and the utility of expulsion for Jewish forces, I control for the pre-war built-up area of every village.

With these variables included, the estimation equation of the main logistic regression model (presented in Figure 4) is $P(Y = 1|X) = \frac{1}{1+e^{-(\beta_0+\beta_1 X_1+\beta_n X_n)}}$ where $P(Y = 1|X)$ is the probability of the village to survive given the independent variables, X_1 is whether the village signed a non-aggression pact, and X_n are the control variables.

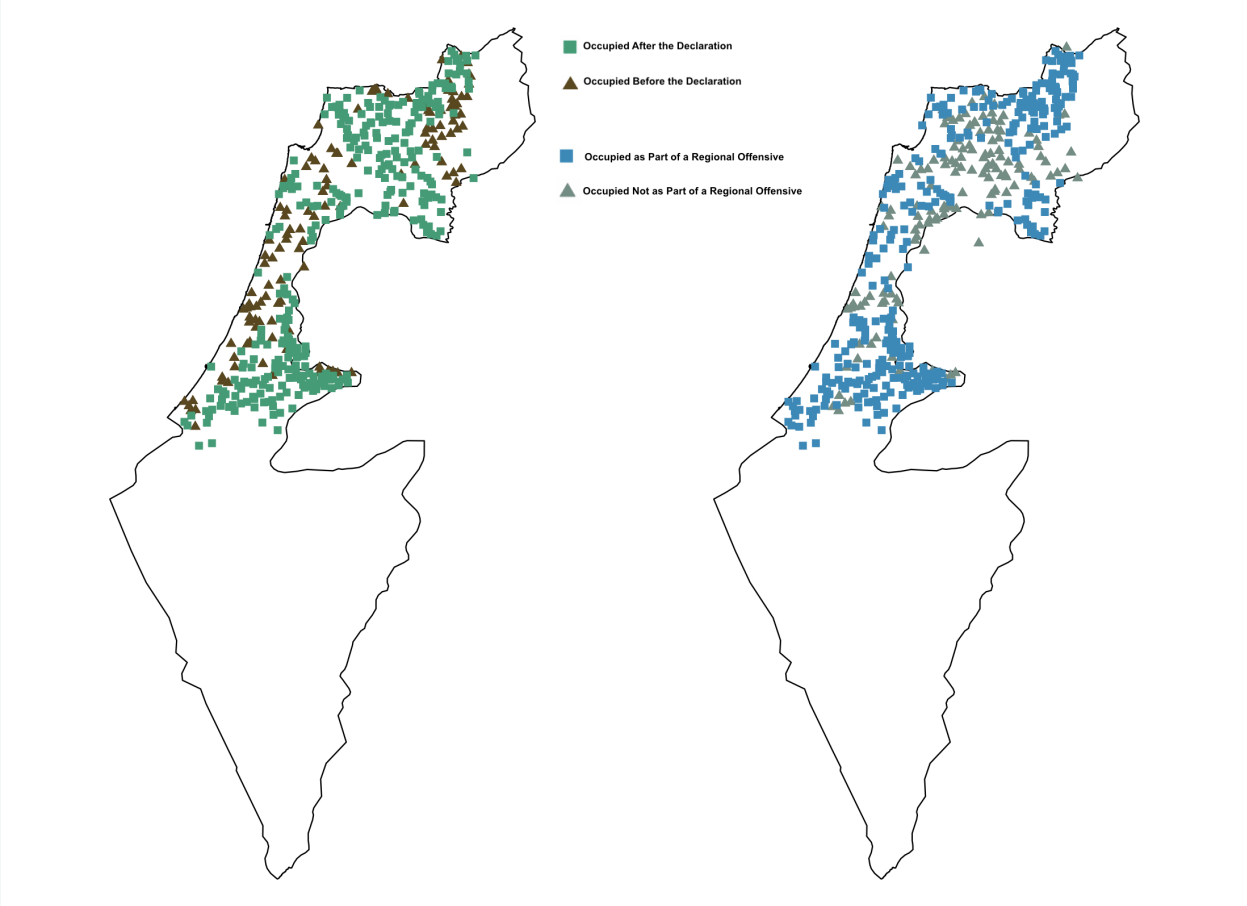


Figure (2) Spatial Dispersion of Palestinian Villages in the Dataset, Grouped by the Key Conditioning Variables.

6 Results

In order to rest the expectations derived from my theory, I used multivariate logistic regression to first detect the association between proximity to the lines of the partition plan and pact-signing, and then measure the correlation between pact-signing and post-war survival among occupied villages, depending on different splits of the sample. The analysis is simple and can only offer correlational evidence, without establishing any causal relationships. However, this exploratory analysis does provide support for the empirical expectations of the theoretical framework. In the appendix, I show that the results survive a series of robustness tests that account for bias arriving from, for example, spatial dependencies and sampling issues. I then use multiple methods of causal inference to strengthen the causal claim in the

study, with the natural limitations of observational data, and rule out some central competing explanations. Finally, in the appendix, I complement the statistical analysis with preliminary qualitative evidence on the mechanisms that led to these results using a deeper focus on two villages.

6.1 The Creation of Intercommunal Cooperation

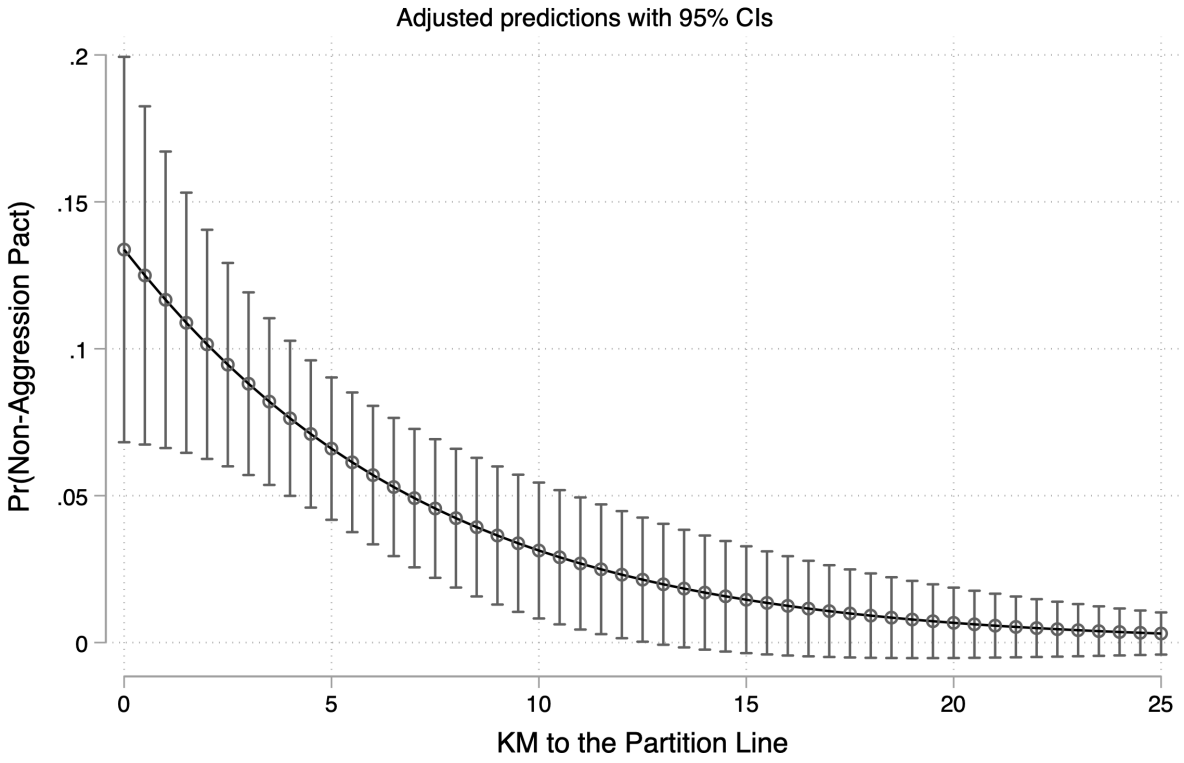


Figure (3) Distance from the Partition Line and the Likelihood of Agreement Signing
* The figure presents the marginal probability of signing a non-aggression pact depending on the villages' distance to the partition line, based on fitted values from a logistic regression model.

6.1.1 Pacts are signed in areas of high mutual threat

A comparison of the maps presented in Figure 1, depicting the locations in which pacts were signed, and Figure 2 in the appendix, depicting the borders of the partition plan, suggests that there is some spatial correlation between the partition plan lines and pact signing. Logistic regression confirms this. Distance from the partition plan, which creates variation

in the signal the plan produces to different villages over the future territorial control of an area, and thus of the likely local strategic setting, is significantly and strongly associated with pact signing. Palestinian villages that are located next to the lines are more likely to sign these pacts than villages located further away.

Figure 3 presents the results of this model in the form of predicted probabilities. It shows that the likelihood of an agreement being signed increases as a village is closer to the partition lines. This is particularly strong among villages that are close to these borders—when the distance is lower than 10 kilometres. Right next to the lines is also where we can be most confident that the lines were drawn randomly, and so if we limit the sample to those in that range the effect would be even bigger. As seen in the figure, the likelihood of pact signing is close to zero far from the line but is very high (0.2, when pacts are a rare phenomenon compromising 0.1 of the dataset) right near the line. The likelihood of pact signing also doubles between 10 kilometres away from the line and right next to it.

6.2 When Cooperation Breaks Down

6.2.1 The success of pacts depends on lack of new information

Table (1) Main Results Replicated with Controls to Distances

VARIABLES	(1) Survival	(2) Survival	(3) Survival	(4) Survival	(5) Survival
Non-Aggression Pacts	0.319	2.566***	-0.240	2.087***	2.023**
	(0.593)	(0.855)	(0.555)	(0.806)	(0.816)
Built Area	0.000714	1.33e-05	0.000528	4.43e-06	-0.00003
	(0.000550)	(0.000492)	(0.000341)	(0.000386)	(0.00052)
Population	-0.222***	-0.143	-0.181***	-0.136	-0.088
	(0.0638)	(0.112)	(0.0561)	(0.110)	(0.106)
Latitude	2.958***	3.268***	2.371***	3.576***	3.056***
	(0.505)	(0.831)	(0.470)	(0.878)	(0.843)
Longitude	-2.918***	-1.877	-2.176***	-1.904	-1.939
	(0.897)	(1.325)	(0.751)	(1.257)	(1.31)
Regional Operation		-4.534***		-4.756***	-4.440***
		(0.533)		(0.533)	(0.527)
Declaration of Independence		2.872***		2.993***	2.812***
		(0.615)		(0.588)	(0.603)
Distance to Nearest Pact-Signing Village	0.289***	0.226***			0.226***
	(0.0386)	(0.0612)			(0.0623)
Distance to Nearest Jewish Village			-0.0123	-0.00223	-0.0407
			(0.0243)	(0.0430)	(0.0475)
Constant	3.839	-43.18	-0.818	-50.52	-34.092
	(21.61)	(32.88)	(17.78)	(31.11)	(33.61)
Observations	459	435	459	435	435

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

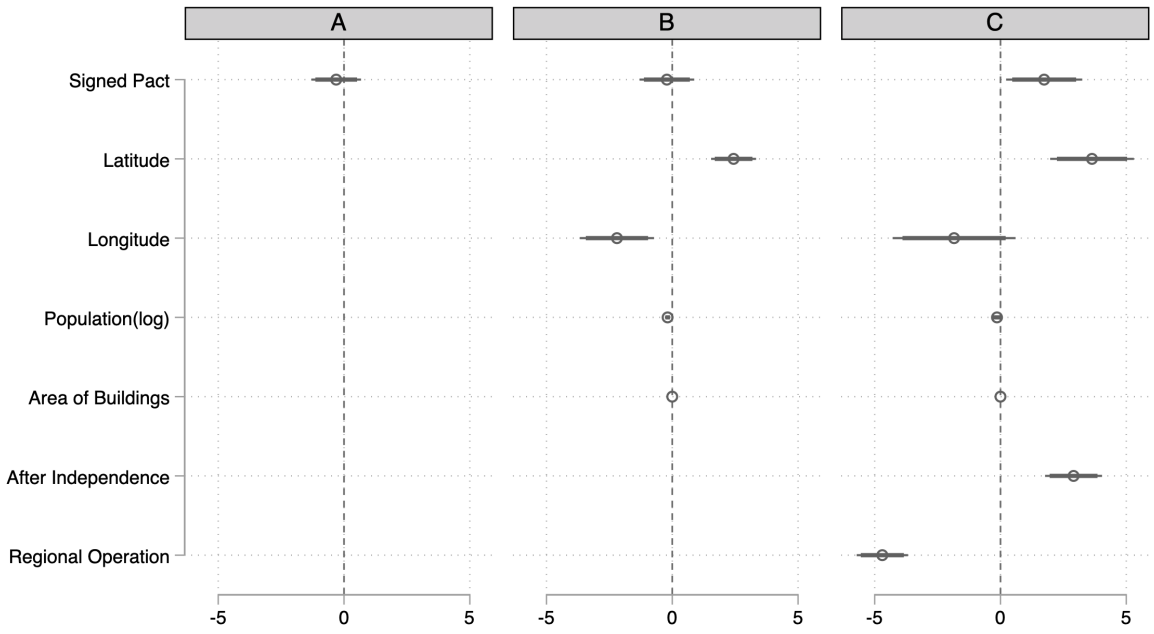


Figure (4) Non-Aggression Pacts and the Likelihood of Survival in War
* The figure presents the results of a logistic regression model, with the x axis plotting the coefficients of every variable.

Comparing the survival rates of villages that signed or did not sign non-aggression pacts with their neighbours reveals that they are not overall more likely to avoid displacement. As evident from Model A and B in Figure 4, even with the added controls there is no statistically significant relationship between pact signing and survival. This means that overall, at the time of occupation, the pacts did not protect the Arab villages from displacement. Table 1 presents the result in a table format and with additional controls to distances to other villages, with similar findings. Tables 4 and 6 in the Appendix alternatively model the macrolevel signals as interactions with peace pacts, and finds that the interactions are significant - the macrolevel signals shape the effect of peace pacts on displacement.

In spite of this finding, if controls for what additional macrolevel signals were received during the occupation are added to the model, a significant ($p < 0.05$) relationship does appear

between pact-signing and survival, as seen in Model C. This shows that even though non-aggression pacts did not overall protect the villages, their influence is shaped by macrolevel heuristics and conditioning on them reveals that the pacts can be effective. I will now turn to situate the size of this correlation among other influential variables, and then further investigate the impact of these conditioning variables on the relationship between pacts and survival rates. Interestingly, the survival chances of villages is overall higher after the declaration of independence. This is could be because of the prolonged period in the last six months of the war in which it has not been officially concluded, but levels of violence have subsided dramatically and occupations tented to be less violent, partly due to peace negotiations happening in parallel.

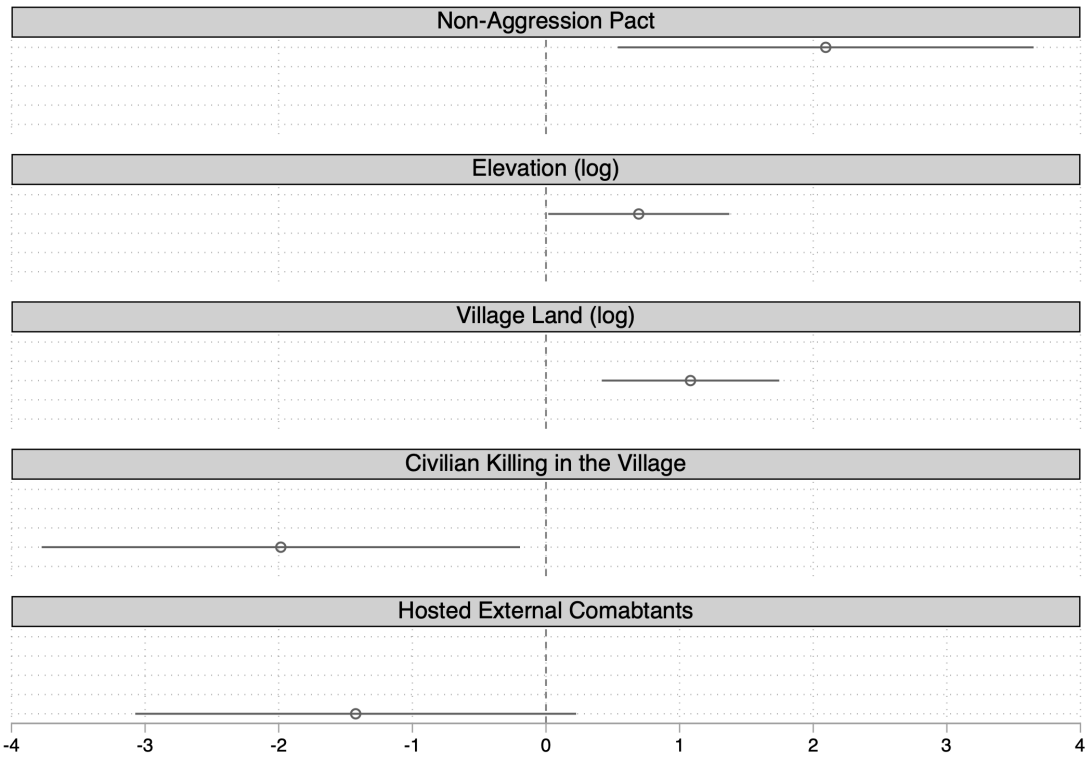


Figure (5) The Effect Size of Mutual Protection Pacts on Surviving Displacement, Compared to Key Variables

* The figure presents the results of a logistic regression model, with the same controls as in Model C in Figure 4, but with varying main independent variables. The x axis plots the coefficients of every variable.

6.2.2 Tangible importance of mutual protection pacts

It could be valuable to compare the conditional effect of mutual protection pacts to that of other variables that have been shown in the past to affect violence against civilians or forced displacement. The Palestinian Exodus is characterized by the widespread ethnic cleansing of Palestinians, in which surviving and avoiding displacement is a rare outcome. Nevertheless, signing a mutual protection agreement is associated with a doubling of the probability of surviving the war without being displaced, conditional on the control variables in Figure 4. Figure 5 plots the results of Model C in Figure 4 for a selection of salient explanations. The effect of signing a mutual protection agreement on whether a community is uprooted is comparable to the effect of civilians being killed in the village. Mutual protection pacts increase the likelihood that a village would not be forcibly displaced more than the decrease caused by the village hosting external militia forces. The effect size is also larger than the impact of a standard deviation increase in both the elevation of the village and the size of its land. In sum, mutual protection pact signing, and so microlevel cooperation, is a key variable in explaining variation in forced displacement in the war.

6.2.3 Compliance before and after the Declaration of Independence

Looking just at villages that were occupied before the declaration of independence reveals that for villages occupied at this time, there was a significant positive relationship between pact signing and the survival of Arab communities ($p < 0.05$). This is in a model identical to the main model, but with different sub-samples. However, among villages that were occupied after the Israeli state was already formed this relationship is no longer significant and the effect size is close to zero, as appears in Figure 6. This means that cooperation worked if it was actualized before the new signal embedded in the symbolic declaration created new, updated beliefs on the local strategic setting. The increased certainty this signal gave to Jewish villages, indicating that they are more likely to prevail and then live in a homogeneous state with no interaction with the displaced neighbours, led Jewish leaders

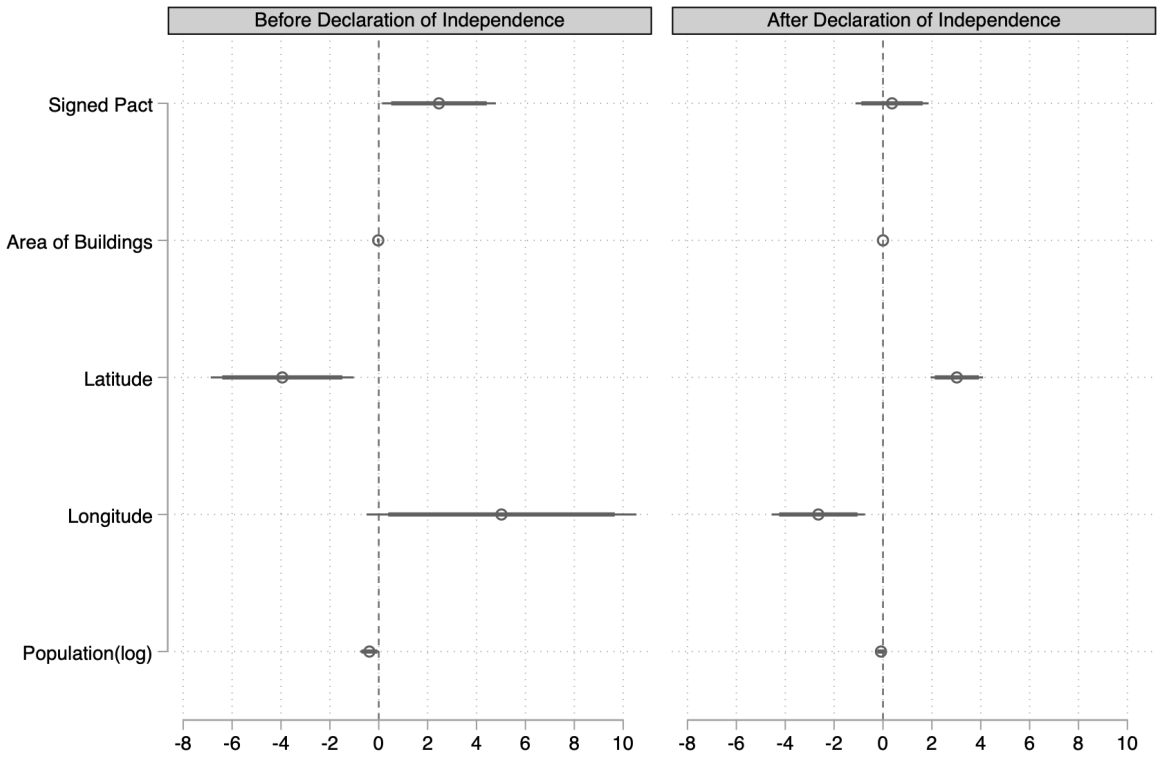


Figure (6) The Impact of Non-aggression Pacts on Survival Depending on the Stage of the War

* The figure presents the results of a logistic regression model predicting the likelihood of survival in the war for every village, with the x axis plotting the coefficients of every variable from logistic regression models for just villages that were either occupied after (right) or before (left) the declaration of independence.

to defect from the cooperation and allow the displacement of their neighbours.

Figure 7 illustrates this finding by graphing the probability of not being displaced among pact signers and non-signers before and after the Declaration of Independence. It shows that before the declaration, villages that signed non-aggression pacts had a higher likelihood of survival—four times as much as those that did not sign pacts; villages that were not occupied until after the declaration also had overall a high chance of surviving, but the difference between pact signers and those that did not sign pacts with their neighbours is very small and non-significant.

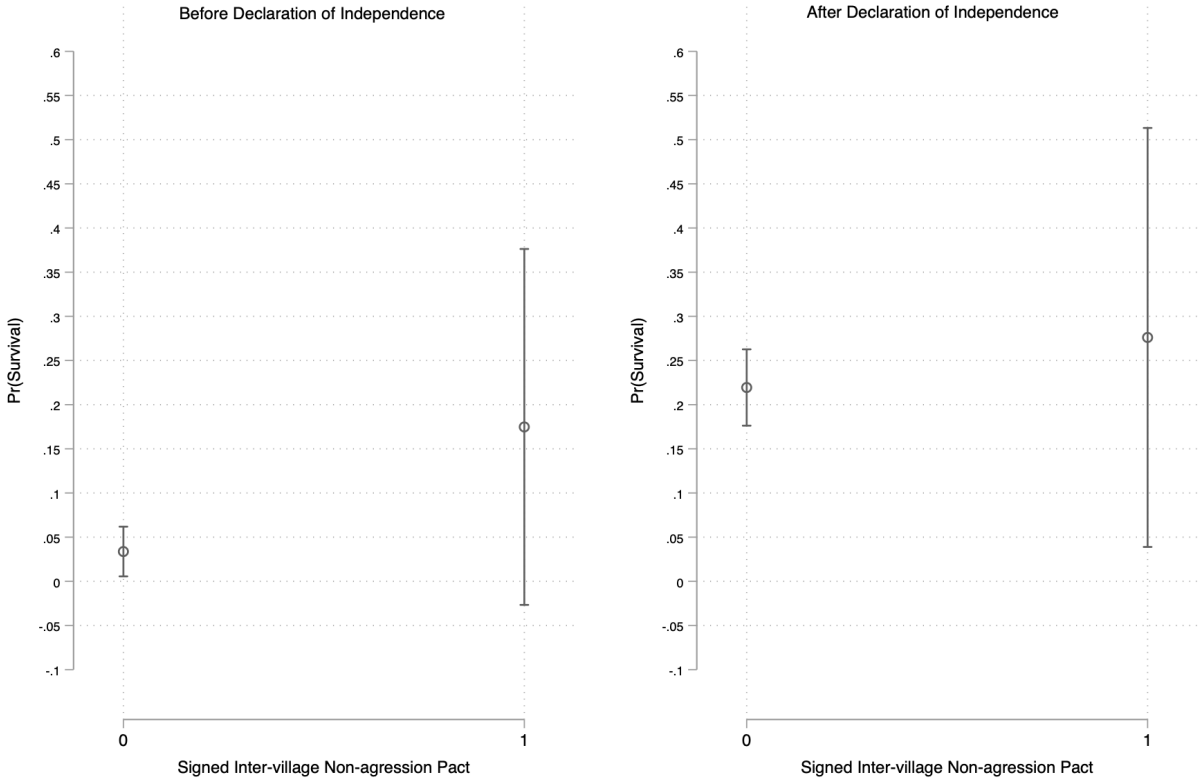


Figure (7) Predicted Probability of Surviving the War, Depending on Pact-Signing and Time of Occupation

* The figure presents the marginal probability of surviving the war depending on the whether a village signed a non-aggression pact, with the other variables averages, based on fitted values from logistic regression models for just villages that were either occupied after (right) or before (left) the declaration of independence.

6.2.4 Compliance before and after the declaration of cleansing operations

Next, I turn to look at how the association between non-aggression pacts and wartime survival interacts with the regional military moves, and thus local updated beliefs, measured by variation in the method of occupation. In these models I also added a control for the period of occupation, to account for the possibility that regional operations are used more often in late parts of the war. Otherwise, this model identical to the main model, but with different sub-samples. Focusing on villages that were occupied after a regional offensive was announced, which represents a lower perceived threat for the Jewish villages, reveals no significant relationship between pact signing and the survival of Arab communities, and an

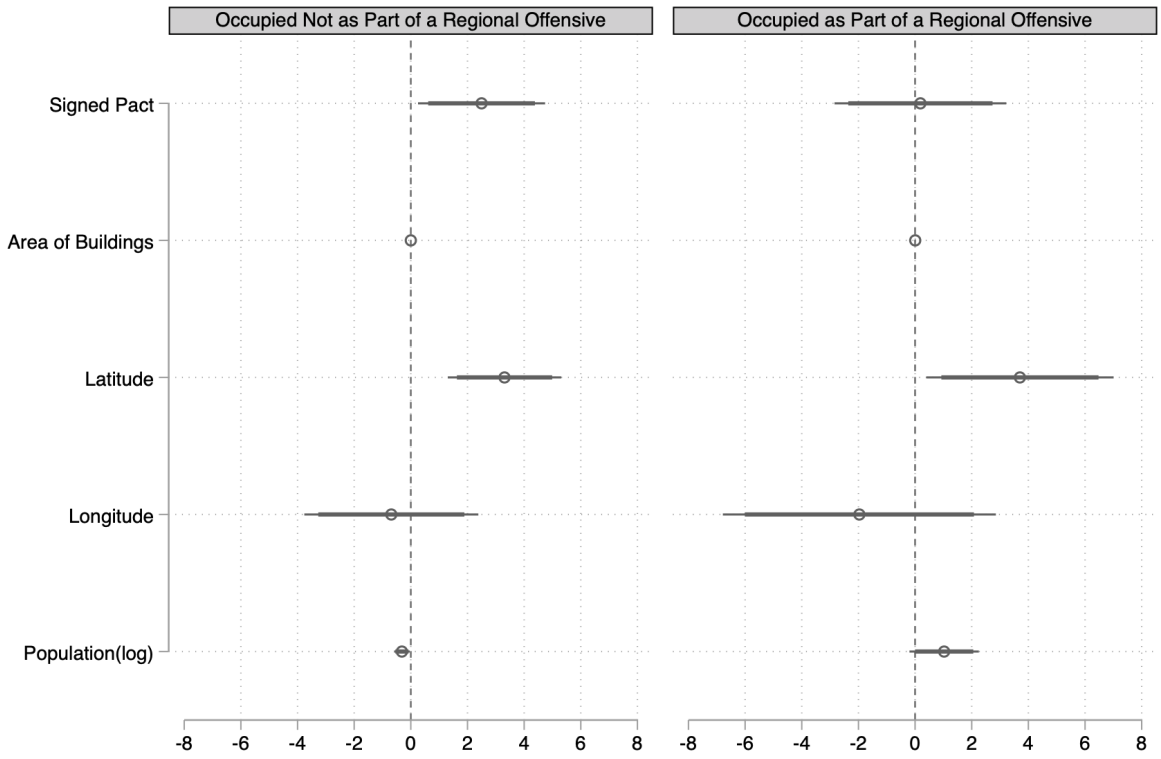


Figure (8) The Impact of Non-aggression Pacts on Survival Depending on the Regional Circumstances During the Occupation

* The figure presents the results of a logistic regression model predicting the likelihood of survival in the war for every village, with the x axis plotting the coefficients of every variable, from logistic regression models for just villages that were either occupied in a regional operation (right) or were not (left).

effect size that is close to zero, as described in Figure 8. Among the rest of the villages, which were occupied without such reinforcements and so during the time of the occupation Jewish communal leaders still believed the rival can punish defection from the pacts, there is a significant positive relationship between pact signing and the survival of Arab communities ($p < 0.05$). The announcement of a regional cleansing operation is a signal that very strongly indicates the rival would not be able to take back control, and thus that this is the last move of the game; if it is used as a heuristic, it leads leaders to the conclusion that defection from the cooperation, and thus violence, is now optimal.

Figure 9 once again graphs the probability of not being displaced among pact signers

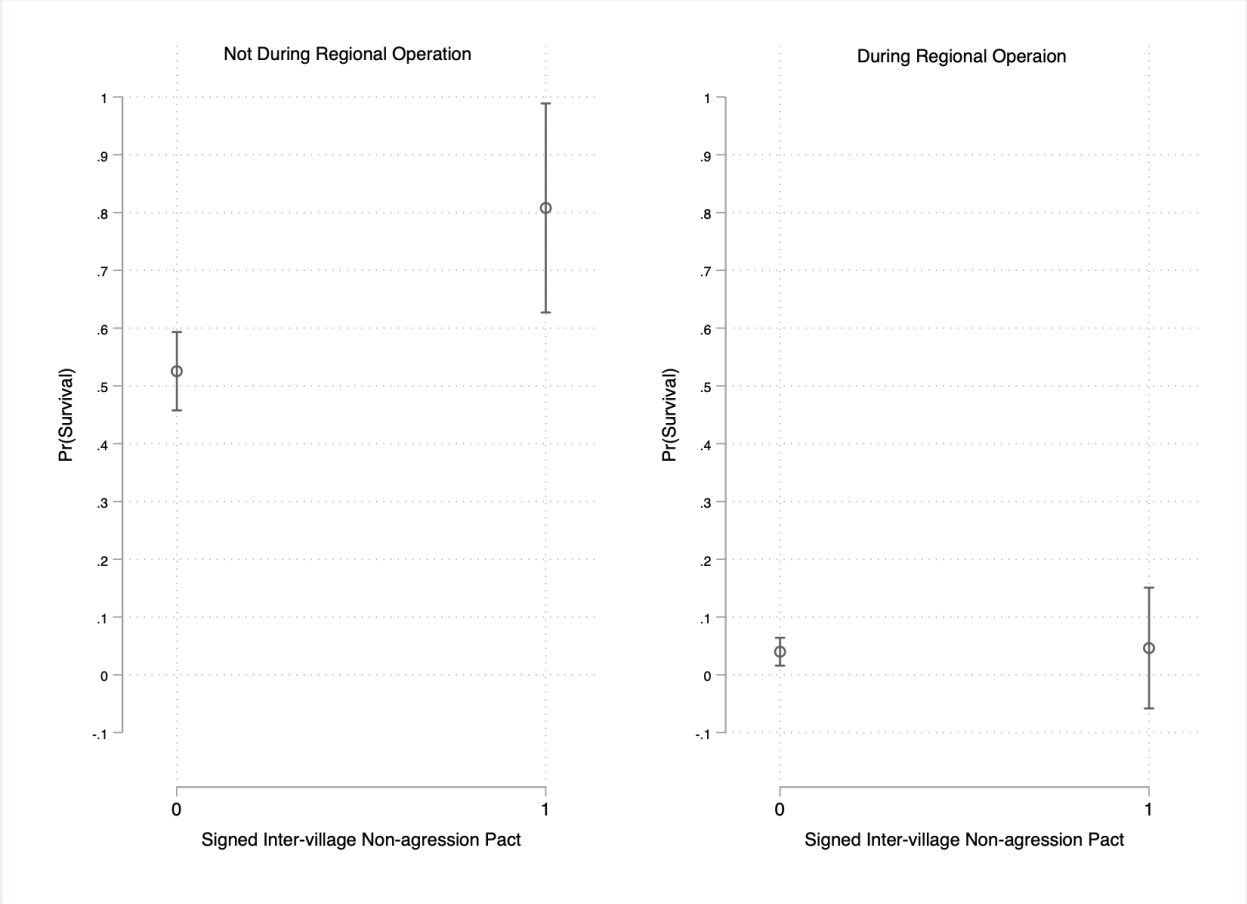


Figure (9) Predicted Probability of Surviving the War, Depending on Pact-Signing and Regional Dynamic

* The figure presents the marginal probability of surviving the war depending on the whether a village signed a non-aggression pact, with the other variables averages, based on fitted values from logistic regression models for just villages that were either occupied in a regional operation (right) or were not (left).

and non-signers depending on the method of occupation. It details how there is no apparent difference in the likelihood of survival as a result of non-aggression pacts among villages occupied after a cleansing operation was announced, but there is a large and significant difference among those occupied while uncertainty was still high in the area.

7 Additional Evidence

The proposed theoretical model, formalized in Section 1 of the appendix, is rich with assumptions and implications, and so requires further support. In order to do so, I have carried out extensive robustness tests, countered alternative explanations, and demonstrated the mech-

anism in the case of studies, as detailed in the supplementary materials and summarized here. The additional evidence in the appendix greatly helps establish the causality of the above correlational relationships, supports my premise on civilian agency, and demonstrates the mechanism.

First, a series of additional tests support the robustness of the main results, as described in Section 2 of the appendix. To overcome problems of spatial interdependence, I replicated the results with a control for distance to the nearest pact signing village, control to for distance to the nearest Jewish village, and in spatial autocorrelation models that account for a spatial lag in the dependent variable or spatial error. To overcome problems stemming from the rare outcome, I replicated the results in penalized likelihood logistic regression model.

Second, I countered the main alternative explanation, that pre-war relations lead to intercommunal cooperation, in Section 3.1 of the appendix. Correlating the year the nearest Jewish village was formed with pact signing, to test for the effect of the extent of prior interaction, shows that a more lengthy prior relationship is negatively correlated with pact signing. To counter related problems stemming from selection into the pacts and selection bias that might thus occur, I use a series of methods of causal inference and replicate the results when pacts are instrumented with the distance to the partition plan; when the data is transformed into a panel and fixed effects are used; and when the impact of the wartime signals is tested with a matched difference-in-difference model.

Third, in Section 3.2 of the appendix, I supported my notion of the central agency of civilians. I argue that while an explanation arguing that the combatants broke the pacts against the will of communal leaders could explain some of the results, communal leaders could still warn their neighbours that an attack is coming and allow them to flee if they are still loyal to the pact. I used data on whether Palestinian villages were able to preemptively evacuate before an attack happened and found that this was not correlated with the pact signing.

Finally, further support for the influence of civilians on displacement, and for the mechanism more broadly, is supplied with two case studies. As described in Section 4 of the appendix, I used the statistical model to detect two cases that are very similar in the model predictions but differ in whether the pact survived. I then used archival evidence, news reports, historical accounts, and testimonies from the ground to offer a short illustration of the pact signing and its influence on displacement. I found that local community leaders had a central role in villages being spared when pacts worked but profited from displacement and did not protest when pacts were broken. I also find that while previous cordial relationship does form the foundation on which cooperation was built, local leaders cited the fear of enemy takeover and uncertainty over the division of land as the trigger that lead to it.

8 Conclusion

The pact mentioned in the introduction, between the villages of Deir Yassin and Giva'at Shaul, became famous during and after the war. The reason for that is not its effectiveness, but rather its resounding failure. It was initially highly successful, managing to prevent hostilities, as previously described. But as the war progressed, the setting changed and reduced compliance with the peace initiative. As the historian Gelber (2004) writes, "it is highly doubtful whether at the beginning of April the pact, which had been signed in January under totally different circumstances, still held water" and the "intensification of hostilities didn't leave the villagers of Deir Yassin with the luxury of sitting out the conflict on the sidelines". The exact events that followed are heavily disputed, but even Israeli historians confirm the following account. As part of Operation *Nachshon*, which was meant to cleanse the outskirts of Jerusalem, Deir Yassin was occupied by the Jewish militias *IZL* and *LHI* with the approval of the local *Hagana* commander. The Jewish combatants launched their attack from Giva'at Shaul and proceeded to massacre more than a hundred of the villagers, including non-combatants, women and children, and then to loot and burn the bodies and houses (Morris 2005). Any survivors were placed on trucks and expelled to villages controlled by Arab forces. The massacre became the most infamous event of the

war, with the number of deaths being the largest in it except for the occupation of the city *Lydda*; it was described in historiography as "pivotal in modern Middle East history" (Hogan 2000). A few years after the war, the neighbourhood *Giva'at Shaul Beit* was built on the lands of the destroyed Deir Yassin. It exemplifies how the pacts worked and provided protection initially, as described in this case in the introduction; but they failed to provide sustainable protection from violence to the signatory communities if Jewish communities realized that the threat of enemy takeover has been significantly lowered.

The findings of this study suggest that such mutual protection pacts are created when village leaders deduce from macrolevel signals that a lengthy repeated interaction with the rival is expected, in which the threat of enemy takeover is strong enough to restrain violent behaviour. Additionally, they were only complied with while the reason that led to their creation, such as perception of the strategic setting, is still relevant. If insecurity is high then both of the local communities might still need the protection of the pact and thus they will abide by it; if the mutual insecurity disappears, which likely will happen at some point or place in the war—since it is an essentially unstable equilibrium—then these pacts will fail. Macrolevel signals that make leaders update their beliefs and lower the perceived likelihood of the enemy taking over lead to the end of cooperation if the defection is still possible. Such macrolevel signals and microlevel cooperation exist in a variety of cases. It is important to test the external validity of the theory and findings by testing these expectations in other contexts. The evidence presented here are also mostly correlational and could be complemented by future research that will use a more sophisticated, causal-inference-based design.

This study contributes to the literature on alliances in civil wars by pointing out an often overlooked type of local agreement and offering a framework to understand their breakage. It also contributes to the extant research on the determinants of violence against civilians in war by showing that the finding that violence is induced by local cleavages is also true when transposed: violence can be constrained by local cooperation, under some conditions.

Going beyond influential explanations to interethnic cooperation, I show that it works also as a tool to prevent the spread of violence from the top down, depending on changing macrolevel settings. Historiography tends to over-emphasize the bloody and contentious parts of history and episodes of war while ignoring ordinary cases of surprising cooperation and peace. Similarly, peace scientists focus on contentious pasts and their role in leading to violence; it's important to complement this and uncover the whole picture by also looking at examples of cordial relationships and their impact on wartime violence and survival. These pacts were forgotten from the historiography of the First Jewish-Arab war, just as intercommunal coordination in the shadow of violence is often overlooked by scholars of civil war; increased attention to both is beneficial for our understanding of armed conflicts, in Israel/Palestine and in other cases.

A limitation of the paper is that various alternative explanations can not be ruled out completely, as discussed in the Appendix. I posit that the evidence lends support to my theory in particular, but competing models are not impossible. However, either way, the study shows that pacts had an impact on displacement in one way or another - and that this is dependent on macrolevel changes.

The paper continues a long line of research that turns to microlevel dynamics to explain outcomes in civil war, but it also offers a cautionary tale. Local relationships are important, but as the study demonstrates, they interact with and are shaped by regional and national processes. Accordingly, policy proposals that focus on local initiatives and peacebuilding from below should be aware that these require a suitable macrolevel environment and support from peacemaking at higher levels. Even the most well-intentioned local peace initiatives would not be able to sustain the pressure of an all-out war, and a sustainable local approach to peacebuilding requires a parallel effort at the national level to support it and strengthen compliance with it. Moreover, the study sheds new light on how information shapes decision-making in war, showing that policy announcements that were never actualized and political declarations that are just symbolic can have a tangible effect indirectly if they are salient

enough, by providing new, useful information to microlevel actors that change their behaviour and thus shape local patterns of cooperation and violence. When the UN committee that drafted the partition lines convened, it was not aware that it will have such an unexpected effect; policymakers that convene now in negotiation rooms and draft different territorial divisions should know that even if they are not actualized if published the information they will reveal will contribute to both widespread violence and spatial patterns of cooperation in the microlevel.

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Appendix:

My Neighbor, My Friend? The Logic of Intercommunal Cooperation During Armed Conflict

August 12, 2024

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9 Formal Model

Theory of Macrolevel Heuristics and Microlevel Civilian Behavior in War

Abstract

What explains whether the relationship between neighbouring civil communities is violent or cooperative? I argue that when taking control, external combatants rely on communal leaders to sustain the displacement of their outgroup neighbours, thus giving the leaders significant agency in negotiating with their neighbours and deciding whether to pursue violent or non-violent outcomes even after local violence spiralled out to an all-out war. The communal leaders will pursue non-violent cooperation with their neighbours in the form of mutual protection agreements, which are sustained by the threat of grim-trigger switch to violence, if they think that the rival combatants are likely enough to take over at some point in the war. Otherwise, the leaders would see the game as one-shot and push for the violent displacement of their neighbours. The key determinant of meaningful variation in leaders' perception of likelihood of continued interaction with, and threat from, the neighbours are macrolevel heuristics—exogenous and public signals generated by political developments at the interstate, state, and substate systems. These can be purely symbolic declarations, as long as they are salient and informative. The signals lead some leaders to be certain of the length of the interaction and pursue violence, while those that are left in uncertainty pursue cooperation. Later, new signals break down some cooperation by indicating the game is ending before it does.

> "Love your neighbor, yet pull not down your hedge"—George Herbert

> "Establishing a theoretical link between macrolevel political processes and local conflict dynamics is crucial for gaining a better understanding of key outcomes"—Balcells and Justino (2014: 1346)

9.1 Basic Setup

Civil wars tend to be exceptionally bloody and involve a horrific amount of civilian victimization. After war breaks out and violence becomes widespread, what determines whether

some groups involuntarily become victims, while others remain protected? More particularly, when the violence is particularly absolute and large-scale, such as in organized ethnic cleansing, how come some communities manage to survive and avoid being targeted? Or on the flip-side, even if war does break out, what is the reason violence spreads to some regions but not others? Most explanations rely on explaining the decision making of armed groups, showing that they struggle with informational constraints or principal-agent problems and thus result to violence. In this model I take a different approach. I argue that because of the limits on the ability of external armed groups to handle local matters, they delegate decision making on forced displacement, a from of violence against civilians that requires continuous local presence, to leaders of local civilian communities. Thus, to understand patterns of displacement-versus-survival during the war, we need to model the preferences, constraints, and strategies that these leaders face. I then do so, showing that they rely on observing information from the state and inter-state system to decide how to act against outgorup neighbours; such information eases the informational constraints that most leaders face, leading them to pursue violence, while making others turn to cooperation across group lines, under specific conditions. Thus, my model describes a mechanism in which the macrolevel influence local decision making indirectly and unexpectedly, and a parsimonious theory that explains whether neighbouring civilian communities that live in the shadow of wartime organized violence will have a violent and conflictual interaction or a friendly and cooperative relationship.

While previous theories of interethnic or intercommunal cooperation focused on mechanisms that restrain the emergence of violence locally to stop it from spiralling out of control to an all-out conflict, I focus on a different setting. War has already broke out and armed violence is pandemic and organized. Opportunism and inter-group cleavages have already overcome any local mechanisms of conflict resolution; violence is now the norm and is carried out strategically by large, national groups. The main aim of these groups is to take control of as much territory as possible. Thus, they aim to defeat the enemy combatants and get exclusive hold of as many localities; their treatment of enemy civilian population is driven by these incentives. The armed groups are associated with one identifiable and segregated civilian groups, which can be primarily political but under these conditions is more likely to be ethnic. However, the armed groups are different from local civilian communities in several key ways. Most importantly, combatants are mobile and their numbers are relatively small, while civilians remain in their home communities and are the majority. This means that in order to achieve their objectives, the combatants have to constantly move across the state to be able to battle the enemy. If enemy combatants are present in a certain locality, they will have some incentive to travel to that locality and eliminate them, thus taking control of

surrounding territories; but once control is established over a locality, if the enemy does not re-enter the village, the armed groups have no incentive to go back to it. They are present at the local level only when armed force is needed for a battle against enemy combatants.

As the carriers of armed force, the combatants are those that make the game happen. Every time combatants are locally present is an iteration of the game; when they are absent, away fighting in other regions, the theoretic game cannot develop. Once the combatants enter an enemy locality, they have to decide how to handle the civilian population of that village. One significant form of civilian victimization, massacres or the murder of multiple non-combatants, is an option that the combatants can take. This is because it just requires their presence for a limited amount of time, and can be carried out just after the battle, before the combatants leave the local area. However, forced displacement, a significant form of civilian victimization as well, requires collaboration with local ingroup civilians. That is because of the distance of the combatants from the localities, while the local civilian communities are always present. This means, firstly, that the combatants have to rely on local ingroup civilian communities before they take over a village, to give them logistic support and intelligence. These are valuable resources that are available to actors that were previously consistently locally present, but not to external actors; that is why the combatants rely on local civilian communities, thus avoiding the costly need to establish bases and intelligence networks in such peripheral areas. Secondly, the combatants also rely on local ingroup civilians after they leave the region. Unlike massacres, forced displacement is a continuous form of victimization that requires constant maintenance. Once the enemy population has been expelled, local civilians can take over empty villages and lands, preventing the return of refugees and cementing the displacement.

Therefore, if armed groups want to displace enemy civilian populations, they face a strategic choice. If trust in local ingroup members is low and collaboration with them impossible, they would have to maintain a very costly local presence or use violence against ingroup members to force them to help. However, my premise is that as members of the same group, there is high trust between combatants and civilians with a shared identity. The national groups are cohesive and civilian members of the group have some political power in them, which means there is tight coordination between the combatants and civilians. Moreover, the combatants only care for cementing territorial control; enemy displacement can aid that somewhat, but the preference for it is not very strong when compared to the preference of local ingroup civilians—who, as I describe in the next section, care a lot about the outcome of their neighbours, because of the stake they hold in local affairs. This setting leads combatants to delegate the decision over the displacement of locality populations to local civilian allies. The inherent differences in physical distance mean that displacement is

only possible with civilian cooperation; the preference structure means that civilians care a lot about the displacement of local outgroup memebers, while combatants less so; and the ingroup cohesion means that combatants are bound to coordinate with the civilians. The combination of these mean that leaders of local civilian communities, communal leaders, are those the determine whether a neighbouring civilian community is displaced.

Thus, to understand local patterns of displacement we must model the decision making process of communal leaders. Moreover, this influence gives the communal leaders significant agency; they have the ability to use it to bargain and threat, which can lead to intercommunal cooperation, or to profiteer from inflicting violence on the neighbours. Since violence is the main and most important social process happening in war, this ability to influence displacement is what then characterizes the nature of intercommunal relations during war. Understanding the decision making of civilians will help explain these. I will present a simple but sensible preference structure, and then show that uncertainty over the likely number of iterations of the game—which corresponds to the likelihood of enemy take over and of the local region exchanging hands-determines the optimal strategy for communal leaders. I argue that leaders resolve this dilemma by Bayesian updating of information from the macrolevel. That is why, I conclude, signals from the interstate, state, and substate systems, which can be purely symbolic - but informative - announcements or news, are what shapes intercommunal relations and explains patterns of violence and cooperation.

9.2 Preferences and Equilibrium

The game follows a structure of a simple prisoners dilemma game with an uncertain ending, and thus can be easily solved. Once combatants enter a local area, which means they defeat enemy forces and take over the neighbouring village, the communal leaders have to make a choice about the displacement of the neighbouring civilian community. I first begin by defining the payoffs from the different potential outcomes of such an event, which are summarized in 1.

$$u = \begin{cases} -\alpha & \text{if victim} \\ 0 & \text{if status quo} \\ \pi & \text{if violent} \end{cases} \tag{1}$$

For simplicity, I assume that the "local" area is a region that includes two localities, which both include homogeneous civilian communities associated with two of the opposing groups in the war, A and B—in which A is the group that is the first to militarily take over the region and B its rival. The first possibility is that everything continues as normal; both civilian communities stay in place just as before. That is the status quo and the payoff to

both sides in these circumstances equals to 0, because there were no relevant changes. If combatants enter a region and the communal leader makes them displace the neighbouring community, his community receives payoff π. This encompasses the direct material benefit members of the community taking over get from taking the displaced village's resources, such as fertile lands, built houses, access to wells, agricultural equipment, farm animals, and any other possessions that were not looted by the combatants. The ability to take over the land is most important because the conflict is primarily over territory. In addition, π also includes indirect benefit that the community members get as members of the wider ethnic group, which becomes stronger because of the displacement. Displacing members of the rival group cements the control of the group over the territory and it means that the group will be dominant in the territory in the long-term, long after the war ends. Thus, every communal leader have a strong and non-negligible incentive to displace the neighbouring community.

In parallel, every leader faces a possibility that their community will be displaced itself. I define the cost of displacement to the uprooted community as α. Importantly, I posit that the leaders see the cost of being displaced as higher than the benefit received from displacing the neighbour, $\pi < \alpha$. This matches the reality of conflict because when a community is displaced it losses are firstly equivalent to π, because its a zero-sum game and the community is loosing its land and most of its possessions, and its group becomes weaker overall; and secondly, communities tend to assign unique value to their own village. Such an attachment is common and can stem from rational incentives like having adapted to living and prospering in that specific environment but also from emotional connection to the village or bias due to past investments in the village. Moreover, the displacement itself incurs costs on the uprooted beyond the loss of their homes: being forcibly transferred or having to flee can often mean being exposed to violence, and having to invest in transport and emergency housing. Finally, if a community is displaced it is likely to be dispersed and fractured; even if all its members survive, the network that connected them will be damaged. This will be very costly to communal leaders, such as traditional village leaders, that will loose their constituents and much of their power. Due to all of these reasons, it is a reasonable assumption that $\pi < \alpha$.

Key to decision making is that displacing the neighbour and being displaced itself are not mutually exclusive. It is possible that community leader A would decide to displace its neighbour, and then later combatants from group B would displace the A community. Under these circumstances the payoff to both leaders is $\pi - \alpha$. This is worse from the status quo, because $\pi < \alpha$ and hence $\pi - \alpha < 0$. Leader A, who is aligned with the combatants that are the first to take over, has to make the first decision. If the game has just one iteration, which is what happens when after group A holds the region it would not change hands again, then

the preferred choice is clear: to displace the neighbouring population. He will receive the payoff π, which is better than the payoff he received for not displacing the neighbour $\pi > 0$, and there is no risk of being displaced because with that move the game ends. However, I posit the leaders are uncertain over the future territorial control of the region, and do not know what is the likelihood that the rival group will take over later in the war. That means they are uncertain over the number of iterations and length of the game. This can be formalized with the discount factor δ ($\delta \in [0, 1]$), which represents the likelihood another iteration of the game will be played.

$$u_\delta = \begin{cases} 0 & \text{if cooperates} \\ \pi - \delta\alpha & \text{if violent} \end{cases} \tag{2}$$

In a repeated game, if $\delta = 1$, cooperation is possible. Both leader play a grim-trigger strategy that inherent to the reality of the conflict: if they are displaced they have no reason to stop the displacement of their neighbours, and with that the game will end; there is no return to cooperation after displacement happened. While in every iteration by itself the Nash equilibrium is for the leader whose group is taking control to displace the neighbour and receive payoff π which is greater than 0; but given that it is more than likely that the rival leader would then punish this by allowing the displacement of the your community, it is better to cooperate and receive payoff 0.

However, the leader does not know what is the exact value of δ. Thus, the utility of communal leader A is as described in 2. He can take the safe route, the equivalent of buying out an insurance, and pursue a strategy of *cooperation* in which he will agree on a mutual protection agreement with the rival that is enforced with a grim-trigger strategy. He will thus be keeping the status quo and receive a payoff of 0, giving away the possibility of displacing the neighbour and receiving a payoff of π but also being safe of being displaced and paying that cost of α. In contrast, he can pursue a more risky strategy of *violence* by displacing the neighbour right then and there; he would thus receive a payoff of π immediately but would risk paying a greater cost of α at probability δ. The game is not an infinite one, because both sides know that the war will end at some point; but it is uncertain when will it end and for how long it would last, and that is why cooperation is possible. For as long as the leaders remain uninformed about δ they will have that possibility, but if both know the end of the game then defection would be optimal to both, and thus cooperation impossible. I prove this in Section 9.7.

9.3 Signal-based Heuristics

Denote that setting in which games are actually one-shot (very low likelihood of enemy occupation) as Θ and actually repeated (high likelihood of the territory switching hands between both sides) as Λ. Every leader i has a prior belief that the game is repeated with probability χ_i, so $Pr_\Lambda = \chi_i \in [0,1]$. At the beginning of the war exogenous political developments or policy announcements at the macrolevel can be used as a heuristic for the type of game the leaders are plating at the microlevel, but it has different meaning to different leaders. The signal is salient and informative, which means the leader receives it and then decides to rely on it. This can be the case even if the macrolevel development is purely symbolic, non-tangible, or never actualised: it just needs to be well-published enough (which makes it salient) and to contain new information on the risk different villages face of enemy take over (which makes it informative).

Some interpret it as a signal that the neighbour cannot capture their village and thus the strategic setting is that of a one-shot game. These leaders receive the signal θ that indicates the game is one-shot; the probability of receiving signal θ if it is indeed such a setting is $Pr_{(\theta|\Theta)} = \phi \in [0,1]$ and we assume that signal is indicative so $\phi > 0.5$.

Some leaders interpret it as a signal that the neighbour can capture their village and thus the strategic setting is that of a repeated game. They thus receive a signal λ; the probability of receiving signal λ if it is indeed such a setting is $Pr_{(\lambda|\Lambda)} = \psi \in [0,1]$ and we assume that signal is indicative so $\psi > 0.5$.

The leaders use Bayes' rule to update their beliefs about the probability of the game being repeated. Suppose the leader received a signal θ, interpreting the heuristic as a sign that the game is one-shot. The posterior probability the leader thinks the game is repeated is presented in Equation 3. Alternatively, suppose the leader receives signal λ, that the game type is repeated. The posterior probability the leader thinks the game is indeed repeated is presented in Equation 4.

$$\delta_i^\theta = Pr_{(\Lambda|\theta)} = \frac{Pr_{(\theta|\Lambda)}Pr_\Lambda}{Pr_{(\theta|\Lambda)}Pr_\Lambda + Pr_{(\theta|\Theta)}Pr_\Theta} = \frac{(1-\psi)\chi_i}{(1-\psi)\chi_i + \phi(1-\chi_i)} \tag{3}$$

$$\delta_i^\lambda = Pr_{(\Lambda|\lambda)} = \frac{Pr_{(\lambda|\Lambda)}Pr_\Lambda}{Pr_{(\lambda|\Lambda)}Pr_\Lambda + Pr_{(\lambda|\Theta)}Pr_\Theta} = \frac{\chi_i\psi}{\chi_i\psi + (1-\phi)(1-\chi_i)} \tag{4}$$

These updates beliefs help the leaders choose their strategy, whether it is cooperation or violence, as described in Section 9.4. However, after the start of the, additional political developments are possible and they could be used once again as heuristics. Thus, it is important to model the possibility that wartime signals with new information change again the beliefs of the leaders on the likelihood of a repeated game. I focus on new signals that

indicate that the game is now a one-shot game and the influence this has on villages that decided to cooperate [1]. The timing of military control in relations to the timing of the signal creates an important variation. In some areas, before the new signal was created, combatants have already taken control of the neighbouring village and then left, and would not come back until the end of the war when displacement is no longer possible. In these villages, the leaders cooperated and then the game was terminated, locking-in the strategy of cooperation. In others, the combatants return to the area at some point after the new signal led to updated beliefs. In those areas the leaders can change their strategy based on the new information. Moreover, the new signals could vary spatially, meaning that they are only relevant to some villages but not others irrespective of their timing. Both of these mean that some village update their belief based on the new wartime signal and some do not.

Leaders that do not receive the new signal remain with a posterior probability of δ_i^t, which they held at the beginning of the war. $t = \theta$ if the leader previously received a signal that the microlevel game type is one-shot and $t = \lambda$ if the leader previously received a signal that the microlevel game type is repeated. The other leaders receive an additional wartime signal that they game is one-shot, which can be identical to θ. These leaders then update their posterior beliefs once again, in accordance with the new signal and their previous t beliefs, as described in Equation 5

$$\delta_i^{t\theta} = Pr_{(\Lambda|t\theta)} = \frac{Pr_{(\theta|\Lambda)}Pr_{\Lambda}}{Pr_{(\theta|\Lambda)}Pr_{\Lambda} + Pr_{(\theta|\Theta)}Pr_{\Theta}} = \frac{(1-\psi)\delta_i^t}{(1-\psi)\delta_i^t + \phi(1-\delta_i^t)} \tag{5}$$

9.4 Equilibrium

Morris and Shin (2005) have shown that in such global game there is a unique equilibrium strategy in which the players follow a simple switching rule described in 6.

$$a(\delta_i^u) = \begin{cases} \text{violent if} & \delta_i^u < k_i \\ \text{cooperate if} & \delta_i^u \geq k_i \end{cases} \tag{6}$$

In which δ_i^u is the updated probability that the enemy will take over δ for leader i given all prior signals u. That is intuitive given Figure 2 and means that if the perceived probability of the enemy taking over is higher than a certain threshold, the two sides would

[1] There are two reasons that motivate this focus. Firstly, villages that chose to pursue violence at the start of the war are unable to change their strategy, since the cooperation relies on a grim trigger reputation mechanism that if one leader pursued violence, the neighbour would also do so and the game would end. Secondly, I make the natural assumption that as the war plays out and the sides engage in direct battle, there is increased clarity on the relative strength of every side and military control is increasingly cemented in different areas. Such developments are more likely to lead to signals indicating one-shot games rather than creating new repeated games.

cooperate to lower the risk and be protected from enemy displacement; but if it is lower then that threshold, the leader whose side takes over first will take a risk and pursue the displacement of the neighbouring community—and if the rival side does end up taking over it will also displace that leader's community. The posterior probability δ_i^u is compromised by the random and noisy prior belief on the probability in addition to the updates given the macrolevel signals. Thus, the indication given a macrolevel signal is key to spatial variation in intercommunal relationships having a cooperative or violent character.

9.5 Predictions

9.5.1 Emergence of Cooperation

Given the equilibrium described in 6, we can calculate the likelihood of choosing a cooperative strategy given the different macrolevel heuristics that create δ_i^u. This means we are ready for the first result of the model.

Prediction 1 *If the macrolevel announcement transmits a signal indicating that the probability of the enemy taking control of the region is sufficiently high (low), the communal leader A would be more likely to pursue a cooperative (violent) strategy.*

This follows an intuitive logic, with proof in Section 9.7. Leader A can deduce from the macrolevel signal that there is a high chance of enemy take over, $\delta_i^u > \delta_i$, or a low chance, $\delta_i^u < \delta_i$. This signal is informative so he decides to rely on it and thus update his belief on the possibility of future enemy take over. If the signal indicates a high probability of enemy takeover, the updated belief decreases the expected value of violence by increasing the risk it will backfire, and vice versa.

9.5.2 Breakage of Cooperation

Among the leaders that chose to cooperate, the cooperation is feasible because there is uncertainty over the length of the game. Otherwise, if they know that a game is ending, they would defect from the agreement and pursue violence—because that is optimal at the last iteration of the game, and given that violence is optimal across every iteration. This leads us to the second results.

Prediction 2 *If before the game has ended, new wartime macrolevel signals indicate that the probability of the enemy take over is now very low, the communal leaders would defect from cooperating.*

This follows from the set-up of the game and Prediction 1. Once the leaders know that

a continuous interaction is not likely anymore, when δ_i^u is much lower than δ_i^t and thus $\delta_i^u < k_i$, they have no reason to continue cooperating because that is not optimal any more. However, it is possible that they have already stopped the displacement of the neighbours when combatants aligned with them entered the local area, and then that these combatants would not enter it again—they have no reason to if they already hold control of the area. In that case the new signal does not matter—cooperation, and thus the status quo, would be preserved, because that was the status at the last iteration of the game (the last time combatants entered the area). The leaders can try to use the control of their group to take resources from the neighbours, marginalizing them and using the groups power in the new post-war state; but they cannot displace them, because the armed force to do so in not available and the end of the war signifies the end of the window for displacement, since the environment in which that is normatively acceptable, and the armed mobilization required to do so, are gone. However, if combatants enter the area after the new information from the wartime signal has been received, the leader can implement the strategy switch and defect from cooperating, breaking the pact by displacing the neighbour.

9.6 Implications

The model has number of interesting implication to theories of political behavior in civil war. It is innovative in that it brings together the levels of analysis, providing a detailed mechanism in which political processes at the macrolevel have an impact on patterns of violence at the conflict's microlevel. Those political processes can be mere declaration that are purely symbolic, but they can have a pronounced impact on key local dynamics in the conflict. The model also elucidates the impact of uncertainty on civilian victimization in war. While violence is often used by combatants when they face informational constraints, I show that it is preferred by civilians when they have certainty-if they face uncertainty they manage lower risks by pursuing non-violent cooperation that is held together with that shared uncertainty.

Often, civil wars are preceded with negotiations over an agreed division of the territory or attempts at these. These have naturally been unsuccessful and broke down, leading to the breakout of the war. However, if proposals of territorial division from these negotiations become public knowledge, they can shape microlevel conflict dynamics indirectly and even if they are never put into practice. That is because they reveal key information—what areas are considered by the sides or negotiators to be more likely to be in the control of one side and what areas would be the battle-lines. That is because certain areas would be more easily conceded or offered by negotiators to one side. This can make all villages update their prior belief over the probability the enemy will take over their village. Interestingly, such

hypothetical maps are likely to indicate to most villages that they are more likely to be facing one-shot strategic settings, since only a few villages would be on or in-between the indicated battle-lines or in the areas that are more hotly contested. Thus, signals that originate from leaked information from negotiations at the state and interstate levels are likely to increase the likelihood of violence across most regions, despite creating a pattern of cooperation in intercommunal relations in some areas.

9.7 Proofs

9.7.1 Cooperation in Uncertain Length

The strategy both players pursue if they choose to cooperate is a one-shot deviation principal: if anyone defects, defect forever—but otherwise cooperate. Once one communal leader allowed the displacement of the neighbouring community, there is not return for cooperation. I posit that cooperation is possible with that strategy in a seemingly infinite game. To show that, I need to show that if no one defected before, cooperation is the equilibrium. Given Equation 1 we know that the return for cooperating is the status quo, 0; and the return for defecting is π, with the risk of $-\alpha$. Capturing the role of game length δ in this, I need to show that:

$$0 + 0\delta + 0\delta^2 + 0\delta^3 + ... \geq \pi - \alpha\delta + \pi\delta^2 - \alpha\delta^3 + \pi\delta^4 + ...$$

This is a geometric series, so it can be written as:

$$\frac{0}{1-\delta} \geq \pi + \frac{\pi - \alpha}{1-\delta}$$

Solving for δ, we can see that this is true if:

$$\begin{aligned} -\frac{\pi - \alpha}{1-\delta} &\geq \pi \\ -(\pi - \alpha) &\geq \pi(1-\delta) \\ \frac{-(\pi-\alpha)}{\pi} &\geq 1-\delta \\ \delta &\geq 1 + \frac{\pi - \alpha}{\pi} \end{aligned} \tag{7}$$

This is, in fact, the k_i threshold. Every leader i assigns a certain value to staying on his land and not being displaced, α, and estimates the worth of taking over the neighbour's land, π. Every leader i also has a perception of likelihood of enemy occupation, δ_i^u. The leaders would cooperate if and for as long as this values fulfill the condition in Equation 7. α and π are fixed before the war, but δ_i^u changes according to the leader's fixed prior belief, χ_i, and any signals he received. Thus, whether cooperation emerges and breaks down depends

on the perceived length of the game, δ, which is created by all signals the leader received, δ_i^u.

9.7.2 Proof of Predictions

The prediction is that δ_i^λ is more likely to be higher than k_i than χ_i. That is true if the condition $\delta_i^\lambda > \chi_i$ is fulfilled. I argue that a sufficient condition for $\delta_i^\lambda > \chi_i$ is that $\psi > 1 - \phi$. Proof can be based on equation 4 by substituting δ_i^λ and simply solving the inequality, as in Equation 8.

$$\begin{aligned} \frac{\chi_i\psi}{\chi_i\psi + (1-\phi)(1-\chi_i)} &> \chi_i \\ \chi_i\psi &> \chi_i[\chi_i\psi + (1-\phi)(1-\chi_i)] \\ \psi &> \chi_i\psi + (1-\phi)(1-\chi_i) \\ \psi - \chi_i\psi &> (1-\phi)(1-\chi_i) \\ \psi(1-\chi_i) &> (1-\phi)(1-\chi_i) \\ \psi &> 1-\phi \end{aligned} \tag{8}$$

We know that $\phi > 0.5$ and $\psi > 0.5$. This is a given since the signal is informative, so it is more likely to be right than to be wrong. Thus, $1 - \phi < 0.5$ and $\psi > 1 - \phi$.

The same calculation can be done in reverse to the case of a signal that indicates a threat is unlikely and that the game is one-shot, as in the prediction 1 and 2. For a leader to be less likely to cooperate if it receives such a signal, I need to show that $\delta_i^\theta < \chi_i$ and a sufficient condition for that is $1 - \psi < \phi$, as proved in 9. We similarly know that $1 - \psi < \phi$ because $\phi > 0.5$ and $\psi > 0.5$.

$$\begin{aligned} \frac{(1-\psi)\chi_i}{(1-\psi)\chi_i + \phi(1-\chi_i)} &< \chi_i \\ (1-\psi)\chi_i &< \chi_i[(1-\psi)\chi_i + \phi(1-\chi_i)] \\ 1-\psi &< (1-\psi)\chi_i + \phi(1-\chi_i) \\ 1-\psi-(1-\psi)\chi_i &< \phi(1-\chi_i) \\ 1-\psi(1-\chi_i) &< \phi(1-\chi_i) \\ 1-\psi &< \phi \end{aligned} \tag{9}$$

10 Robustness Tests

To increase our confidence in the results and overcome the many potential sources of bias, I conducted a series of robustness tests and analyzed the data with multiple alternative methods. Overall, the main results are robust to multiple demanding models and methods, showing that non-aggression pacts do have a negative effect on susceptibility for displacement that is conditional on not receiving new strong signals.

Firstly, an apparent problem is the spatial interdependence of wartime outcome and spatial noise in the data. Since the Palestinian villages are relatively proximate and displacement of one village could be dependent on the displacement of his neighbour, accounting for spatial interdependence seems necessary and indeed suits the methodological approach of Arnon et al. (2021). Table 3 in the Appendix presents the results of regression models identical to those presented in the main text, but with controls for the distance to the nearest Palestinian villages that signed a non-aggression pact (Models 1 and 2) or to the nearest Jewish villages (since distance to Jewish villages will likely correlate with both displacement and pact signing, see Models 3 and 4). The results replicate with these controls—pact signing increases the likelihood of survival only when the signals are accounted for. Table 4 in the Appendix includes a replication of all of the main results with a spatial model that includes auto-correlation of the dependent variable and spatial error. The results are substantially identical with this model, although the interaction with the declaration of independence is not statistically significant.

Another potential source of bias is that both pact signing and survival are a relatively rare phenomenon in the Palestinian exodus. This could bias the standard errors in conventional maximum likelihood logistic regression. I thus replicated the results with a penalized likelihood logistic regression model, which was developed by Firth (1993) and is suggested by Williams (2019) as most appropriate to deal with the rare events data problem pointed at by King and Zeng (2001). The results when this specification is used, as presented in Table 5 in the Appendix, are identical.

11 Alternative Explanations

11.1 Pre-war relations and selection bias

Varshney (2003) argued that intercommunal cooperation arises on the basis of civic associations, institutions that tie together the opposing ethnic groups. These can not only contain violence from spiralling out of control, but also prevent it from penetrating from above. This related to a broader notion, that the foundation of the cooperation is prior relationship and even friendship, not wartime logic. I would argue that such prior relationship can serve as a helpful foundation for intercommunal cooperation, but that it is neither necessary nor sufficient.

Prior interaction is helpful because it supplies information on the trustworthiness and capabilities of the neighbour. But as shown in the formal model, cooperation can be sustained even without such prior interaction, just because of the prospect of a wartime repeated interaction - the mutual threat both parties face. Communal leaders would have no incentive to cooperate in the absence of such threat, even if the neighbours are their friends. Some form of cordial previous relationship is common and natrual in many cases; a balance of threat that leads the parties to expect a repeated interaction is rarer, just as the pacts are. For the same reason, previous relationship is also not sufficient to stop the breakage of the pacts once the threat is removed from one side. This is supported by the qualitative evidence in Section 12.

A related possible empirical problem is that the non-aggression pacts are not randomly assigned. Villages self select into these, and thus this can bias the results and prevent any attempt at causal inference. For example, one possible mechanism for selection into pacts is the prior relationship of villages with their neighbours, which then impacts when their are upheld; this is also the main competing theoretical explanation to intercommunal cooperation. In order to both counter the theoretical challenge of prewar interaction and avoid the empirical problem of selection effects, additional analysis is required.

Luckily, as showed in Section 4.2, the creation of pacts is strongly predicted by distance to the lines of the partition plan. As discussed more extensively before, these lines are exogenous to local characteristics of the villages, and were used as an instrument in McAlexander (2022) and Haran Diman and Miodownik (2022). I therefore use this random variation in uncertainty that is strongly correlated with pact signing to instrument them and estimate their effect on the likelihood of the villages to survive the war. Table 3 in the Appendix presents the results from a two-stage least-squares model in which non-aggression pacts are instrumented with the distance to the partition lines. The results reveal that signing these pacts does have a positive effect on surviving the cleansing that occurred during the

Palestinian exodus, and that this effect only exists if the villages weren't occupied using a regional operation. However, the results should be taken with a grain of salt since McAlexander (2022) argued that the instrument also directly impacted levels of violence before, but not after, the declaration of independence (since it made the Israeli position less precarious, Israeli leadership stopped abiding by the partition lines). This may introduce bias due to the violation of the exclusion restriction. If the analysis is run on a sample that only includes villages occupied after the declaration, when violence was not associated with the partition lines according to McAlexander (2022), the finding on the impact of non-aggression pacts on survival and interaction with the existence or regional operations still holds in a 2SLS model. This suggests that the findings are not biased by the non-random assignment of pacts.

Instrumenting the pacts accounts for the impact of pre-war variables, like previous inter-village relationship. However, there could also be wartime changes in the relationship that impact the pacts and their breakage. This leads to an alternative source of bias, which arises if the results are confounded by unobserved variables that vary across time or across areas.

To overcome this problem, I restructured the data to transform it from a cross-sectional to a monthly panel dataset that ranges from the onset of the war to the ceasefires that ended it. This is possible by using the data on the date in which every village has been displaced to vary the outcome variable, as depicted in Figure 5 in the Appendix.

I then used fixed effects models to account for and discount the impact of such variables. All of the results replicate when fixed effects are used at the month-level (Table 6 in the Appendix), district level (Table 8 in the Appendix), or both (Table 8 in the Appendix). In all of these models non-aggression pacts are significantly correlated with displacement outcomes and significantly interact with the varying sptiotemporal levels of insecurity.

All these tests go to show that the impact of macrolevel signals on pacts is independent of other pre-war and wartime variables, such as prior inter-village relations. These always exist to a certain degree and have a role in pact signing, but the role of macrolevel signals in pact signing is independent of these. Moreover, most Jewish villages at the beginning of the war were built just in the decades before the war; this creates variation in how established were the relationships of the neighbouring villages. However, the number of years a Jewish village existed is not associated with pact signing, so a longer relationship between the neighbours is not associated with intercommunal cooperation[2]. This rules out previously argued for mechanisms that focus solely on friendship between communal leaders or inter-village institutions.

Another approach that considers defection a result of emotional changes to the relationship between villages rests on length of interaction in battle time: continued conflict could

[2]Results available upon request

increase ethnic and emotive polarization, leading to more defections from protection pacts. It is important to note that the paper studies not the effect of continued conflict *per-se* but rather of particular signals that result from changes to the conflict over time. When studying the correlation between pact signing and village survival in a model similar to the papers' main model, the time a village is occupied does not significantly interact with the correlation. This shows that length of conflict alone does not impact the likelihood to defect, but rather that the major events that result in signals are what matters.

11.2 Principal-Agent Problems

Additionally, my model argues that communal leaders can influence military decision making, which is an explicit assumption and scope condition. This is important because a possible alternative argument, stemming from the popular principal-agent approach to explaining violence in civil war, is that the Jewish communities that signed non-aggression pacts wanted to keep the promise they gave, but were not able to do so because the armed forces disregarded the communities' appeal to avoid displacement. This doesn't suit the characteristics of this case study, since the Jewish community in mandatory Palestine was small and cohesive, the armed forces were based on the village's population, and village secretaries did have the ability to contact and coordinate with the national civil leadership that had a good and effective control over most of the armed forces.

This is a scope condition of the theory. As seen in the model in Section 1 of the appendix, the delegation of power to the communal leaders is a result of conditions inherent to all wars - limits on the material capabilities and informational constraints faced by combatants, which necessitates civilian aid - in combination with high intragroup cohesion and coordination; this means that the combatants would not use violence to coerce civilians to help—but rather delegate power to them. The qualitative evidence in Section 5 of the Appendix support the notion that this mechanism occurred in the case study.

Be that as it may, a possible test of this alternative argument is whether villages warned their neighbours of the forthcoming violence before it happened in order to allow them to evacuate peacefully. Since the armed forces would base themselves in the Jewish villages and attacks were coordinated, they would have the ability to warn their neighbours even if they do not manage to stop the violence.

Thus, it is possible that even if a community breaks the pact, and is either coerced to or willingly allow the displacement of its neighbouring out-group village, it might still deliver a warning. Some villages were violently displaced while others were uprooted because they preemptively left to avoid the violence. It is possible that signing a pact raises the likelihood of receiving such a warning and leaving before the violent occupation. From the other point of

view, which is also compatible with my theoretical framework, the pact may give the villages a false sense of security that makes them indifferent to the enemy advancement. It will thus lower the likelihood that they will run before the violent occupation, since they expect to be able to stay. In the ensuing empirical section I consider both of these possibilities.

However, the results reveal that Arab communities that signed the pacts and were displaced were not more likely to be able to leave before the violent attack happened, as seen on Figure 4 in the Appendix. This result holds for both before and after the declaration of independence, and both at villages occupied with or without a regional operation. It is possible that both of the mechanisms described above both coincide and thus lead to the null results, but it is hard to believe that communities will feel safe due to the pacts even if their partners to the agreements warn them that an attack is imminent. Thus, they would have preemptively displaced if told to do so by their allies, but no such pattern can be found in the data. This findings supports the assumption in the theoretical framework on the central agency of the civilian communities and its role in the varying compliance to the pacts.

However, further microlevel support is needed for it, explaining the intricacies of intra- and inter- village relations and showing that the causal process worked out in a way that match my theoretical argument. For these reasons, I will now turn to a nested qualitative analysis of two Palestinian villages in the war. The case studies show that local civilian leaders had a paramount role in guiding combatant decision making; moreover, even when the national leaders were protesting and resisting the displacement of cooperative Palestinian villages, these were anyway displaced with the public support of the Jewish neighbours. The case studies thus provide direct support to my assertions on civilian leaders' role and autonomy in guiding displacement decisions.

12 Qualitative Illustration

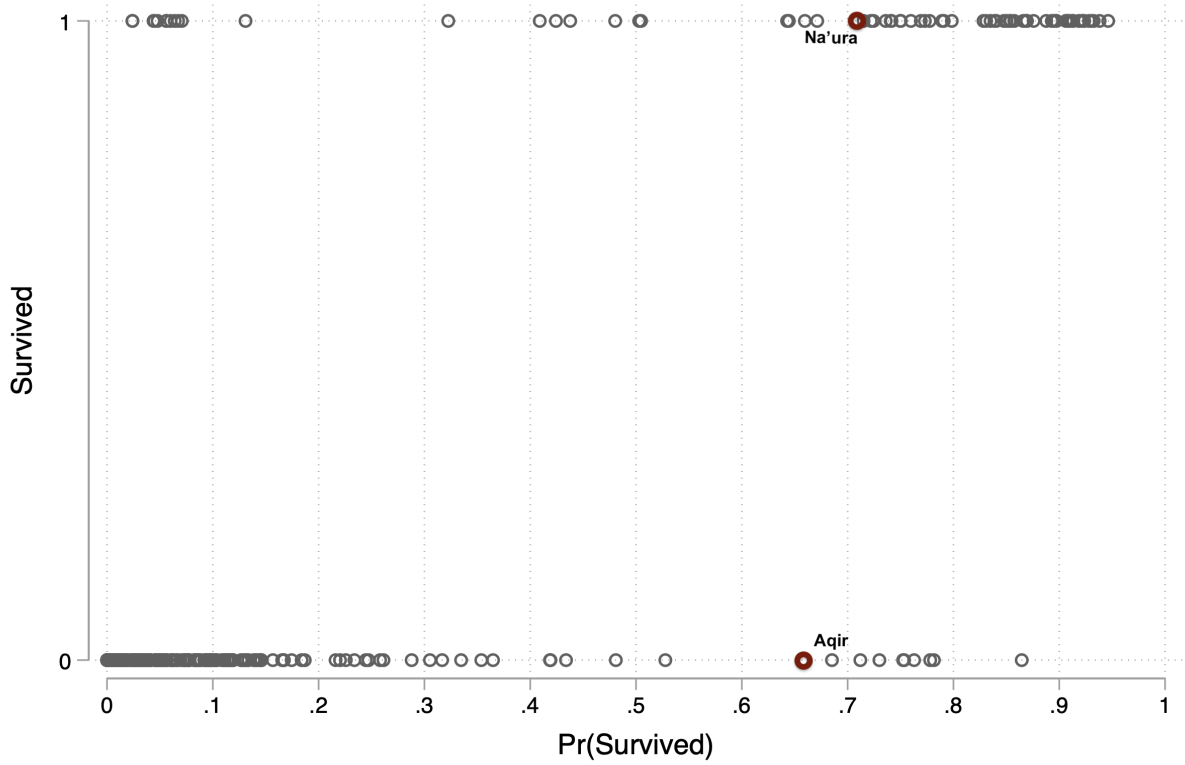


Figure (1) Predicted Probability of Avoiding Displacement versus Actual Wartime Outcome

The quantitative analysis above testifies on the strength of the relationship between macrolevel signals, and the emergence and breakage of microlevel coordination in the form of inter-village non-aggresion pacts. These also provide some causal evidence, with the limitations of observational data. However, questions still remain on the exact mechanism that leads to these relationships. I placed central importance on the agency of the civilian communities and their attempt to cope with wartime uncertainty. However, it is impossible to quantitatively capture the intra-village dynamic because of data availability constraints, and large-N data on inter-village relations is naturally shallow and misses much of the detail. Thus, no direct evidence of the microlevel mechanism and the process that led to the results was displayed. This is particularly important because of alternative mechanisms that may explain the results and shed them in a different light, leading to different conclusions. For example, it could be argued that the macrolvel signals also correspond to the nationalization of the local conflict, since it often means that the armed forces increasingly take over from local forces. Following this line of argument, the pacts breakage originates not in the agency

of local communities, but rather because they lost control. Both this explanation and the civilian-agency based argument are interesting, but it is important to settle them so the right conclusions can be drawn in order to intervene in the debate on civilian agency in civil war.

It is important to lay my ex-ante expectations of what processes I'll observe in the case study, based on my theoretical model. Firstly, if my premise on agency is correct, there should be evidence that civilian leaders guided combatant decisions. In a case of a successful pact, I should be able to oberve that the combatants did not displace the Palestinian village because of the influence of local civilian communities; and in a case in which the pacts were not upheld, that this was done with the agreement of local villages, not in contrast to their desires. If the theoretical argument is correct, I would expect to observe that the pacts were upheld if the village leaders saw a high enough chance that the rival will later take over time of the occupation and that there will be a repeated interaction with the rival. There should be evidence that this directly contributed to the decision of local leaders to not displace villages.

To test the theoretical model previously presented and observe the microlevel process that leads to pact creation and breakage, I aimed use the nested analysis approach suggested by Lieberman (2005). According to this method, the results from the large-N analysis are used to pick cases that are well and badly predicted by the statistical model, and then a qualitative within-case analysis of these is conducted using primary and secondary sources. Lieberman recommends picking cases that differ in the actual outcome, but are relatively similar in the model prediction; are not too extreme, since these won't be conducive to understanding the larger population and were likely produced by random error; and that there is enough information and sources on them, so an in-depth inquiry is possible.

My approach, however, does not directly match Lieberman's, and the variation between the cases in the success of the pact and proximity to the partition lines is limited. This inherently means that the case studies' contribution is limited. Overall, there are no direct evidence for the mechanism in the case studies; they are instead focused on establishing my argument on principle-agent problems and local leaders' autonomy.

Following these guidelines, Figure 1 plots the predicted probabilities of avoiding displacement, based on Model C in Figure 4 versus the actual post-war outcome in each village. As presented in the figure, the model predict quite effectively the outcome in most villages, but there are some outliers. Based on the nested analysis approach, the village of 'Aqir was chosen for further inquiry because it is part of a group of outliers, but not an extreme one; there is some documentation on it and its displacement, unlike many other villages; and it signed a non-aggresion pact, so the main variable of interest failed to predict its displacement. The village of Na'ura was picked as a most similar case study, that the model predicts well, since

it has very similar predicted probability of displacement but differs on the outcome; there is also some sources on the processes in it; and it is also an pact signer.

The following analysis will focus on these two villages and the processes that led to these divergent outcomes. Due to government-imposed constraints on access to archival material, constraints on the coverage of historical sources for small villages, and limits on what can be achieved in the breadth of one article, the analysis will remain concise and modest—intending to complement the previous quantitative model and not be a stand-alone analysis. Thick description is impossible under this conditions, but the analysis did reveal a relatively large amount of anecdotes in support of the theory.

12.1 Na'ura

The Palestinian village of Na'ura is based in the northern Afula sub-district, 18 kilometers south of Nazareth and 6 kilometers away from the partition line—in an area assigned to the Jewish state. According to the 1945 village survey carried out by the British mandatory authorities, it had a population of 340 Arabs before the war, which places it at the lower 25% percentile of villages in the dataset in terms of size. However, the survey also indicates that the village's lands included a total of 10,707 dunams[3] of cultivable land, which places it at the top 10% of villages in the dataset in terms of size of land. This may be because about half of the land, 5299 dunams, belonged to Jews who weren't residents of the village according to the survey. The rest, 5535 dunams, belonged to Arabs. This suggests a high level of pre-war cooperation, since before the war Jewish farmer were only able to obtain land by acquiring it, and unlike other cases the inhabitants of the land weren't displaced or lost their source of income because of the Jewish settlement.

Historical evidence suggests that there was indeed an established cordial relationship between Na'ura and its Jewish neighbours. Azaria Alon, a retired Jewish soldier that served in the region during the war, wrote to the long-standing Jewish newspaper *Dever* about this dynamic in 1978 (Alon 1978) in a rare personal report. "we were working at harvesting our crops with our combines, with armed guards, shoulder to shoulder with their field workers". Na'ura's inhabitants belonged to the local muslim *Zo'abi* hamula,[4] which fostered close relationship with the Jewish community in the area. A report in Dever from the 24th of November, 1947, during the very early stages of the war, confirms this. It reports that Ali Zo'abi, a well respected elder from the hamula that lived in this region, has died. The newspaper reports that Frisherman, the mukhtar of the nearby Jewish moshav *Merhavia*, participated in the funeral, representing his village and expressing his and his village's sorrow

[3]The traditional Ottoman measurement for land. One dunam roughly corresponds to 1000 square meters.

[4]A hamula is a traditional Palestinian social structure that includes an extended family network that can span thousands of members

to the family and village of Ali Zo'abi. The newspaper goes on to remind its readers that the Zo'abi tribe has a multi-year good neighborly relationship with Jewish villages in the area. This reports particularly stands out since it is positioned between reports on the increasing hostilities at this early stage of the war, including the violent robbery of a Jewish factory worker by an Arab gang in the central city of *Rishon Le'zion* and the murder of a Palestinian in the same city (Devr 1947).

The report mentioned above, based on Alon's memories thirty years after the war, exemplifies well the role of insecurity in the creation of non-aggression pacts and the role of civilian agency in their impact on wartime survival. The Jewish forces occupied Beit She'an, an important local city, on the 12th of May 1948—just days before the declaration of independence. He writes about his confusion over the future of the territory at the time:

> *The UN partition of the land left us with discontinuous three parts, without Jerusalem and Jaffa. In the territory of this proposed state there were 550 thousand Jews and 450 thousand Arabs. I did not know then that there was, in writing or verbally or in secret, a plan to expel these Arabs or some of them from the state's territory. The Jewish thinking still saw as a possible solution to these impossible borders a tight federation between the two parts of the land. Out of the state lived 100 thousand Jewish hostages, in Jerusalem, Western Galilee and across the areas of the Arab state. Who could have thought then about displacing the Arabs from their place?*

This is a personal account of a resident and soldier in Na'ura's region during the war, but it exemplifies the way of thinking of many during this earlier stage of the war. He is careful to disclose multiple times that this was his thinking then, during the first part of the war and before the independence; he later goes on to describe the displacement of villages. But at this first stage of the war, which formed a substantial part of it, people on the ground did not know if they will survive the war and what will be the exact territorial partition of the land—since the borders seemed so unfeasible and the Jewish position was untenable. The Palestinian villages in the area were surrounded by Jewish villages and placed in land the supposedly belonged to the future Jewish; thus, both groups had reason to fear the future and were confused and unsure about the future of the territory.

In the days following the fall of Beit She'an, the villages around it were also occupied by Jewish forces. They were all occupied before the 15th of May, when independence was declared; thus, the intentions of the state and its position were still unclear, and the dynamic still resembled the one described above. As Alon continues to write, "the 15th of May approached and no one knew what will happen". These villages were occupied by small

local forces, and not as part of a regional operation. Who will hold the region in the future was still unclear, since it was expected that national Arab militaries from surrounding states were about the invade, focusing on the region. This was known to local residents—as Alon writes about these villages: "nobody knew how to treat them: in two days an invasion was expected. Syrians, Jordanians, and Iraqis were ready along the borders. What do you do with the 3,000 Arabs between the lines?".

Eventually, some of the villages around Beit She'an were violently displaced, like a-Tira, Indur, Zir'in, and Qumya. Other villages, such as Tamra, Sulam, Taybeh and indeed Na'ura, remained and were allowed to stay. What is the difference between these that shaped this variation? Alon offers his own explanation:

> *Maybe it is weird to think of it today: we made our best so they won't leave their villages! The residents of some of the villages, that mostly belonged to the Zo'abi family, asked their Jewish friends what to do. They were told to stay in their places. That's how the villages of Na'ura, Taybe, Tamra and Sulam, stayed in their places till this day. And nothing was taken from them. The residents of other villages stopped any contact and refused to meet with us.*

This perspective is likely to be biased, since the writer tries to describe the behavior of the Jewish forces as benevolent and protect his own record in the war. However, it does show that the Jewish villages had a significant impact on the ability of Arabs to stay, and that displacement patterns was shaped by local intercommunal relations. It also shows that the insecurity during the occupation generated by the threat of Arab militaries positioned nearby shaped the decision to continue to cooperate. Morris (2003) describes how some of these other villages were actually violently displaced and some survived when occupied by the local patrol. At Indur, residents that tried to escape were shot, and the Arab houses were blown up with explosives; in contrast, Na'ura received very different treatment when the patrol arrived to it on the same day—the commander decided that "there is no need to expel these inhabitants" and decided to reach an agreement with the village mukhtar, as claimed in a field report cited by Morris (pp. 260—261). Morris does not write about why the divergent tratment by armed forces existed, but Alon's testimony sheds in a light that fits my theoretical framework—the Jewish combatants like him followed the local Jewish villages and allowed Palestinians that signed the pacts to stay, particularly since they were very unsure about the future territorial division and uncertain about who will control the area.

12.2 'Aqir

'Aqir is located in the central al-Ramla subdistrict, less than two kilometers away from the partition line in area that was assigned to the Jewish state. According to the village survey it had before the war a population of 2,480 Arabs, which makes it relatively large (in the top 10% of villages). These residents cultivated 11,322 dunams of land, with an additional 3,222 dunams of land in the village owned by Jews. Historical records suggest that Jewish Zionists immigrants from Russia bought in 1883 2,500 dunams of land from 'Aqir (Degen and Degen 1998) using funding from Baron Edmond James de Rothschild, that funded many of these purchases in those times. They used the land for agriculture and founded on it a colony named Ekron, based on the name of a nearby destroyed biblical city. They changed it five years later to Mazkeret Btya, named after the mother of Baron Rothschild. The village expanded and by 1945 it hosted 450 Jewish residents that cultivated 8,306 dunams of land in addition to the land they owned in 'Aqir.

The road to Ekron passed in 'Aqir, and many of 'Aqir's residents worked in Ekron. This long-lasting cordial and cooperative relationship between the villages helped in their effort to coordinate and work together to reduce wartime uncertainty and prevent communal conflict. Both villages were located in close proximity (2 km) to the partition line, in a heavily disputed area—close to Ramla, a central Arab city, but also in the way between Tel Aviv and Jerusalem. The villages were located in area designated to the future Jewish state by the UN, but the Jewish village of Ekron had just as much reason to worry—the only way to reach it was to pass by 'Aqir, which was five times larger in terms of population.

Therefore, in mid-December of 1947, during the early stage of the hostilities, the mukhtar of 'Aqir Muhammad Mustafa Mussa approached the mukhtar of Ekron. He wanted to keep good relations between the villages, promising that the villagers he represents would not harm passing Jewish trucks but asked that they won't pass at night (Azoulay 2014). The sides agreed on a "non-belligerency agreement", with 'Aqir promising to restrain its "hot headed youngsters and irregulars" from attacking Jewish traffic (Morris 2003).

As the war progressed, 'Aqir's leadership was under constant pressure to join the fighting. Its village notables were asked by the Ramla command, according to Morris (2003), to "demonstrate belligerency, avoid contact with the Jews, and host foreign irregulars" (p. 254). But 'Aqir continued to resist joining the war and kept its promise for peace. According to Azoulay (2014), 100 armed men from Ramla came from the hills to 'Aqir and pressure was placed by the inhabitants of Rmala to accept them and let them reside in the village. The villagers of 'Aqir refused, saying that they have enough youngsters to protect themselves and that they do not wish to attack. 'Aqir's mukhtar, Mussa, later initiated a protocol in which messages were sent to Ekron every time Ekron's bus was late, and asked to not intimidate

the bus rides and thus keep Ekron's villagers connected with the rest of the Jewish villages (p. 421). Morris (2003), that offers the most authoritative and widest in breadth account of village occupation in the war, generally confirms this narrative. He wrote that "the villagers generally managed to keep out of trouble but occasionally blocked Jewish traffic".

However, by May of 1948 the agreement was in peril. In the first half of that month the Jewish forces began one of their first large scale regional operations, spanning areas designated to the Jewish state in the south of the disputed land, between the city of Rehovot in the north and Be'er Tuvia in the south. 'Aqir and Ekron are located just south of Rehovot. This was named *Operation Barak*, led by the Jewish *Giva'ati* brigade, and was meant to consolidate firm control in those areas. In mid April Hagana forces took over an abounded British base north of 'Aqir, which cut it off from Ramla. This caused "trepidation" in the village; 'Aqir's mukhtar Mussa seeked re-assurances from Ekron, renewing their commitment to the non-belligerency agreement, but at this stage there is no evidence that he was successful (Morris 2003). On the fourth of May soldiers from the Giva'ati brigade encircled the village and demanded its surrender of any weapons. Multiple of 'Aqir's residents were killed, but eventually dozens of weapons were surrendered. The operation was stopped after British forced intervened, but the attacking soldiers already managed to loot the village, and took with them more than half a dozen Arab villagers as hostages since they believed that 'Aqir's surrender was not genuine. The Jewish soldiers threatened to execute the hostages, and so Mussa signed a letter promising to surrender any remaining weapons. Three days later, Giva'ati's soldiers returned and took over the village, which was already mostly empty after most of its inhabitants fled. They blew-up houses with dynamite and in the following weeks forcibly expelled all of the villagers that remained.

This case study sheds light on how despite long-lasting cordial relationship, formal non-aggression pacts, and the peaceful surrender of the village, 'Aqir did not survive the attack that was carried out during a regional operation that consolidated firm territorial control over the area. 'Aqir used its influence to stop Arab forces of attacking Ekron when they wanted to, but later when Jewish forces were going to attack, they were not stopped because the regional operation could cement control and lower uncertainty. Is the failure of the pact originated at the interventions of national-level forces, taking over the agency of local actors? Or was the local Jewish village complicit, or had at least some agency, in the breakage? The evidence points to the latter explanation. There are testimonies that Ekron's leadership cooperated during the early stages of the war, signed the pact, and coordinated to ensure its security; but once operation Barak was announced, there is no evidence that it put an effort to keep the agreement alive, and in fact it avoided Mussa's work to ensure the survival of the pact.

What happened right after the forced displacement of 'Aqir is particularly insightful. By Novemeber, new Jewish immigrants were settled in the houses left over in 'Aqir and took over the lands. This settlement was called "New 'Aqir" and later changed its name to "Kiriyat Ekron". The main reason 'Aqir was targeted was to make sure, with military means, that the road to Ekron was free. In other words, the operation and the occupation of the village benefited Ekron, and there is no evidence that Ekron's residents tried to prevent the displacement or protested after it. This is particularly striking since parts of the national leadership did protest after the displacement. Mapam, a central left-wing party that was a member of the national government, had contact with some fellow leftists in 'Aqir, who were "were willing to live in peace with the Yishuv". Their displacement thus "sparked a flurry of protests" among the party in the national government. Thus, there was resistance to displacement of 'Aqir among the national-level Jewish actors, but not the local community that decided to silently benefit from it despite the existence of the pact. This illustrates the private material benefits I theorized about in the model and indicate that local civilian leaders were responsible for the breakage of cooperation.

13 Supplementary Figures and Tables

Table (1) Summary of Pact Signing and Survival Across Settings

Setting	(1) Overall	(2) Before Independence	(3) After Independence	(4) Not Regional Op	(5) Regional Op
Displaced and No Pact	336	108	227	50	286
Displaced and Pact	26	14	12	3	23
Survived and No Pact	92	4	65	84	8
Survived and Pact	5	2	3	4	1

Table (2) Balance Tests of Key Pre-War Variables for the Partition Instrument

VARIABLES	(1) Population	(2) Built Area	(3) Elevation	(4) Distance to Jewish Villages
KM to the Partition Line	-0.0230	-4.332	-0.0118	-0.0494
	(0.0165)	(2.795)	(0.00989)	(0.0557)
Constant	6.103***	102.0***	5.036***	9.343***
	(0.143)	(24.21)	(0.0831)	(0.483)
Observations	459	459	396	459
R-squared	0.004	0.005	0.004	0.002

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table (3) Main Results Replicated with Controls to Distances

VARIABLES	(1) Survival	(2) Survival	(3) Survival	(4) Survival
Non-Aggression Pacts	0.319	2.566***	-0.240	2.087***
	(0.593)	(0.855)	(0.555)	(0.806)
Built Area	0.000714	1.33e-05	0.000528	4.43e-06
	(0.000550)	(0.000492)	(0.000341)	(0.000386)
Population	-0.222***	-0.143	-0.181***	-0.136
	(0.0638)	(0.112)	(0.0561)	(0.110)
Latitude	2.958***	3.268***	2.371***	3.576***
	(0.505)	(0.831)	(0.470)	(0.878)
Longitude	-2.918***	-1.877	-2.176***	-1.904
	(0.897)	(1.325)	(0.751)	(1.257)
Regional Operation		-4.534***		-4.756***
		(0.533)		(0.533)
Declaration of Independence		2.872***		2.993***
		(0.615)		(0.588)
Distance to Nearest Pact-Signing Village	0.289***	0.226***		
	(0.0386)	(0.0612)		
Distance to Nearest Jewish Village			-0.0123	-0.00223
			(0.0243)	(0.0430)
Constant	3.839	-43.18	-0.818	-50.52
	(21.61)	(32.88)	(17.78)	(31.11)
Observations	459	435	459	435

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

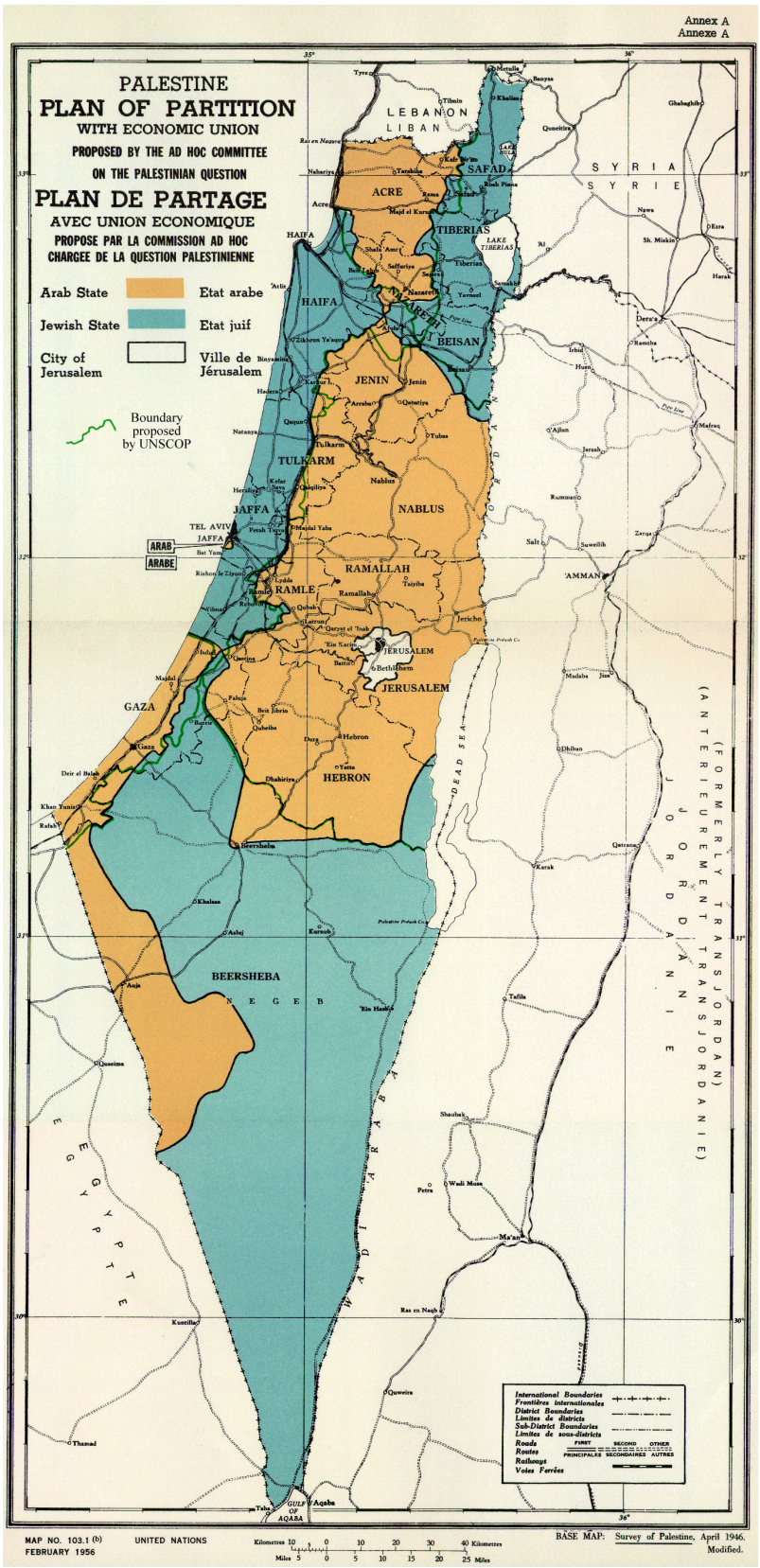


Figure (2) The UN Plan to the Partition of Palestine to Two Independent States

Table (4) Spatial Auto-regressive and Error Models

VARIABLES	(1) Survival	(2) Survival	(3) Survival
Non-Aggression Pact	0.08031*	0.2311**	0.0888
	(0.0462)	(0.0958)	(0.0645)
Regional Operation	-0.396***	-0.382***	-0.396***
	(0.0284)	(0.0293)	(0.0284)
Declaration of Independence	0.147***	0.148***	0.1485***
	(0.0274)	(0.0273)	(0.0286)
Non-Aggression Pacts*Regional Operation		-0.1919*	
		(0.107)	
Non-Aggression Pacts*Declaration of Independence			-0.0171
			(0.0907)
Built_area	-0.00003	-0.00003	-0.00003
	(0.000035)	(0.00003)	(0.00003)
Population	-0.0010254	-0.0019	-0.0009
	(0.007)	(0.007)	(0.007)
Latitude	0.060	0.0710	0.0599
	(0.066)	(0.0665)	(0.0664)
Longitude	-0.185*	-0.2017*	-0.1853*
	(0.097)	(0.0975)	(0.0973)
Observations	435	435	435

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table (5) Main Results Replicated in a Penalized Logistic Regression Model

VARIABLES	(1) Survival	(2) Survival	(3) Survival	(4) Survival	(5) Survival
Non-Aggression Pacts	-0.0229	0.00590	1.736***	2.173***	3.456***
	(0.111)	(0.119)	(0.168)	(0.238)	(0.250)
Regional Operation			-4.685***	-4.636***	-4.776***
			(0.114)	(0.115)	(0.115)
Declaration of Independence			2.895***	2.914***	3.353***
			(0.126)	(0.128)	(0.149)
Pact*Operation				-0.916***	
				(0.349)	
Pact*Independence					-2.607***
					(0.316)
Latitude		2.134***	3.627***	3.733***	3.662***
		(0.104)	(0.226)	(0.202)	(0.170)
Longitude		-1.535***	-1.838***	-1.935***	-1.870***
		(0.171)	(0.375)	(0.287)	(0.237)
Built Area		0.000459***	3.62e-05	2.83e-05	-6.14e-05
		(7.19e-05)	(8.63e-05)	(8.41e-05)	(7.81e-05)
Population		-0.0790***	-0.137***	-0.139***	-0.153***
		(0.0154)	(0.0234)	(0.0234)	(0.0240)
Constant	-1.583***	-16.56***	-54.46***	-54.51***	-54.70***
	(0.0288)	(4.060)	(8.227)	(6.574)	(6.093)
Observations	9,135	9,135	9,135	9,135	9,135

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Figure (3) Instrumental Variable Models

VARIABLES	(1) All Survival	(2) All Survival	(3) All Survival	(4) Non Operation Survival	(5) With Operation Survival	(6) Before Independence Survival	(7) After Independence Survival
Non-Agg Pacts	1.781**	3.056**	1.467**	3.314*	0.0161	0.375	2.596
	(0.842)	(1.382)	(0.589)	(1.902)	(0.280)	(0.251)	(1.700)
Latitude		0.382***	0.260***				
		(0.130)	(0.0709)				
Longitude		-0.276	-0.194				
		(0.237)	(0.126)				
Built_Area		-0.000179	-0.000148*				
		(0.000175)	(8.26e-05)				
Population		-0.0684***	-0.0232				
		(0.0257)	(0.0148)				
Operation			-0.526***				
			(0.0490)				
Independence			0.322***				
			(0.0678)				
Constant	0.0950	-2.254	-1.217	0.460***	0.0271	5.64e-05	0.103
	(0.0619)	(5.749)	(2.964)	(0.120)	(0.0223)	(0.0374)	(0.0868)
Observations	459	459	435	141	318	128	307

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table (6) Main Results in a Panel Model: Month Fixed Effects

VARIABLES	(1) Survival	(2) Survival	(3) Survival
Non-Aggression Pact	1.726***	2.165***	3.433***
	(0.168)	(0.238)	(0.251)
Regional Operation	-4.666***	-4.617***	-4.756***
	(0.113)	(0.114)	(0.115)
Declaration of Independence	2.885***	2.905***	3.341***
	(0.126)	(0.127)	(0.149)
Non-Aggression Pacts*Regional Operation		-0.931***	
		(0.349)	
Non-Aggression Pacts*Declaration of Independence			-2.590***
			(0.316)
Latitude	3.617***	3.724***	3.651***
	(0.184)	(0.191)	(0.186)
Longitude	-1.834***	-1.933***	-1.867***
	(0.271)	(0.274)	(0.276)
Built_area	3.93e-05	3.04e-05	-5.94e-05
	(8.67e-05)	(8.45e-05)	(7.86e-05)
Population	-0.137***	-0.138***	-0.152***
	(0.0233)	(0.0234)	(0.0240)
Observations	9,135	9,135	9,135
Fixed Effects	Month	Month	Month
Number of Months	21	21	21

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table (7) Main Results in a Panel Model: District Fixed Effects

VARIABLES	(1) Survival	(2) Survival	(3) Survival
Non-Aggression Pact	1.310***	0.890***	1.230***
	(0.191)	(0.214)	(0.245)
Regional Operation	-4.933***	-1.135***	-1.236***
	(0.163)	(0.129)	(0.124)
Declaration of Independence	2.134***	0.342**	0.542***
	(0.152)	(0.133)	(0.150)
Non-Aggression Pacts*Regional Operation		-0.891**	
		(0.417)	
Non-Aggression Pacts*Declaration of Independence			-1.244***
			(0.372)
Latitude	0.384	-1.713***	-1.718***
	(0.704)	(0.619)	(0.615)
Longitude	-2.590***	0.357	0.489
	(0.672)	(0.590)	(0.587)
Built_area	-0.000260**	8.03e-05	5.49e-05
	(0.000122)	(9.00e-05)	(8.91e-05)
Population	-0.131***	-0.130***	-0.126***
	(0.0287)	(0.0216)	(0.0216)
Observations	6,468	6,468	6,468
Fixed Effects	District	District	District
Number of Districts	9	9	9

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table (8) Main Results in a Panel Model: Month and District Fixed Effects

VARIABLES	(1) Survival	(2) Survival	(3) Survival
Non-Aggression Pact	1.303***	2.217***	2.534***
	(0.191)	(0.294)	(0.282)
Regional Operation	-4.915***	-4.783***	-4.999***
	(0.163)	(0.166)	(0.167)
Declaration of Independence	2.124***	2.178***	2.585***
	(0.152)	(0.156)	(0.180)
Pact*Operation		-1.655***	
		(0.394)	
Pact*Independence			-1.933***
			(0.338)
Latitude	0.398	0.802	0.484
	(0.702)	(0.714)	(0.699)
Longitude	-2.586***	-2.854***	-2.649***
	(0.670)	(0.670)	(0.668)
Built_area	-0.000260**	-0.000169	-0.000287**
	(0.000122)	(0.000136)	(0.000118)
Population	-0.130***	-0.158***	-0.166***
	(0.0286)	(0.0293)	(0.0298)
Observations	9,135	9,135	9,135
Fixed Effects	Month+District	Month+District	Month+District

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

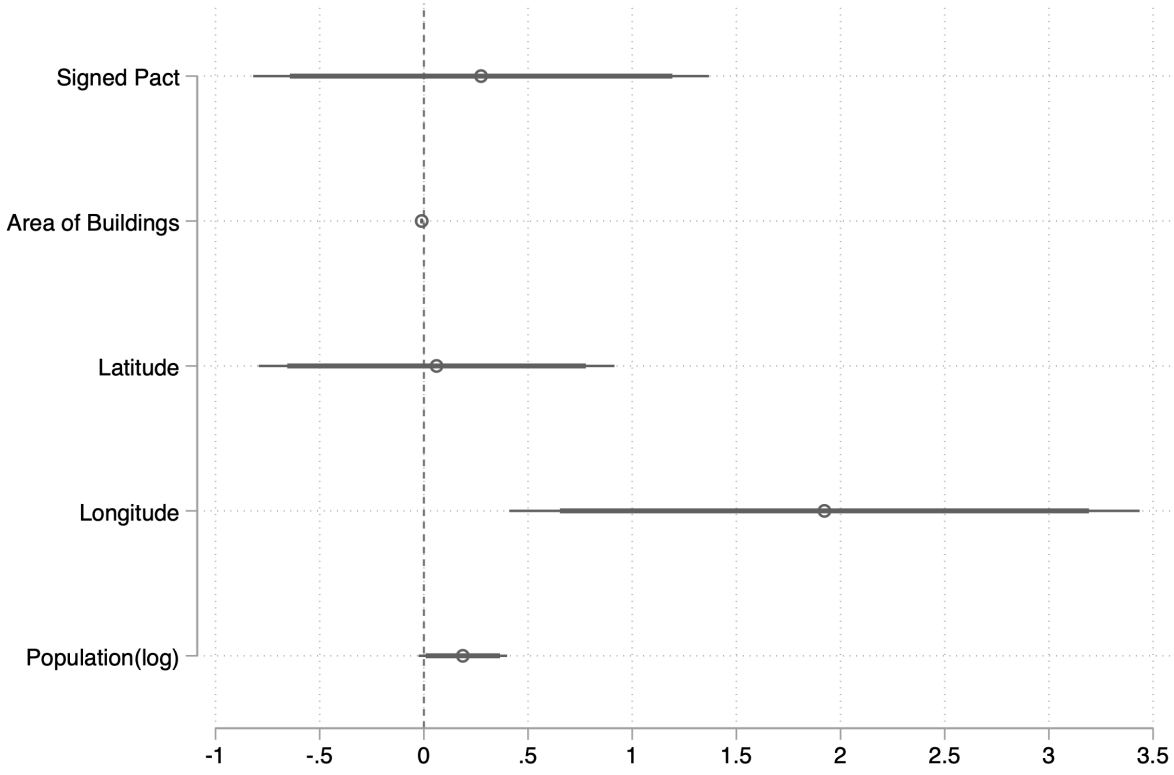


Figure (4) Non-Aggression Pacts and the Likelihood of Preemptive Evacuation

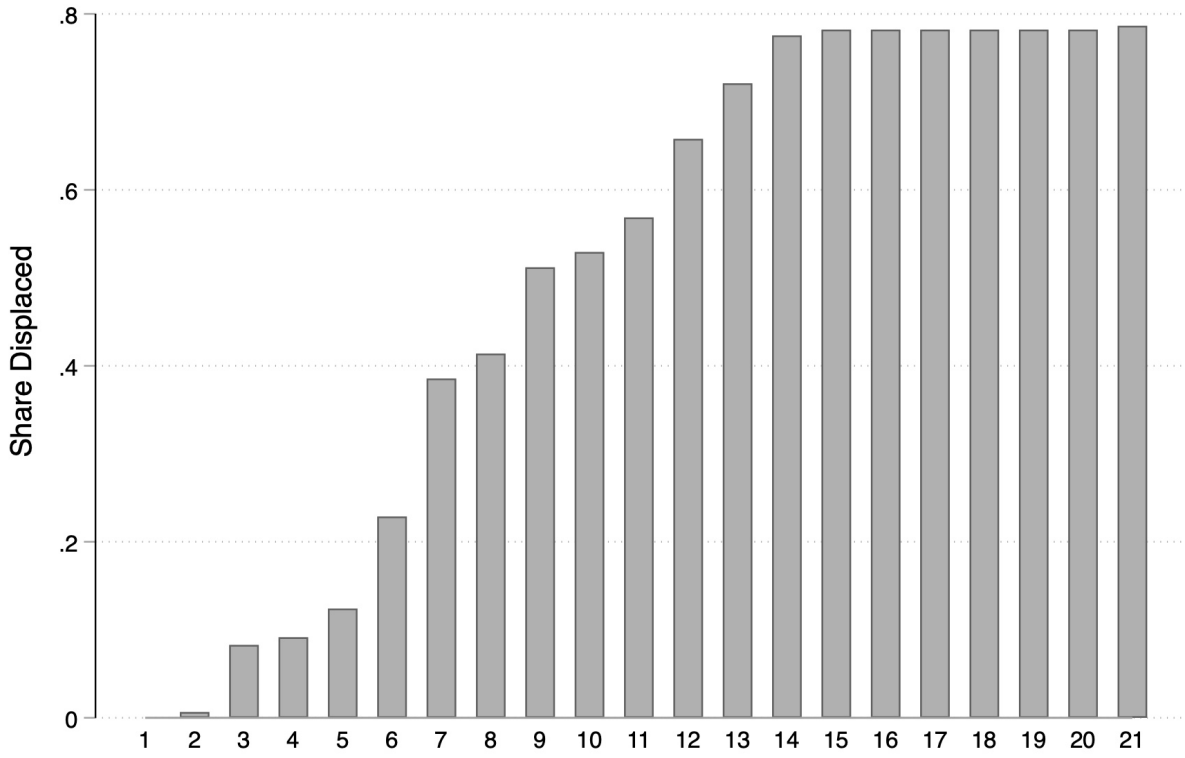


Figure (5) Displacement Rates by Month of the War in the Panel Data (cumulative)

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Shifting Front Lines, Shifting Logics: Disentangling Civilian Targeting Strategies in Armed Conflict[†]

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Abstract

Why are some civilian communities in armed conflict targeted with mass killings while others remain unharmed? Based on existing research on the motive and intensity of civilian victimization, I propose a dynamic logic explaining the target choice of armed groups. I argue that who is killed at the microlevel depends on the changing macrolevel setting: when armed forces are in a defensive setting, fearing an invasion, they will target communities that cooperated with enemy forces—to deter such cooperation by others; but when armed forces are in an offensive setting, attempting to occupy territory, they will target communities that cooperated with their own group. This is done to optimize the signalling power of killings, aimed at encouraging mass panic and flight. I use a statistical analysis of an original dataset of mass killings in the 1948 Palestine War to show that Palestinian communities that either hosted Arab militias or cooperated with their Jewish neighbours were both more likely to be targeted. I use qualitative case study research to support my theory on the timing and motive for this choice.

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1 Introduction

Acts of violence during the 1948 Palestine War often seem random and purposeless, given that the reason some are targeted is often unclear. Research on civilian victimization has managed to point out why in some areas violence happens (Kalyvas 2006; Balcells 2010; Steele 2017; Costalli et al. 2020). However, who is targeted in those areas is still relatively unexplored. Comparing the village of Kanna, which surrendered peacefully and was thus unharmed, to the village of Eilabun, which worked closely with the Arab Liberation Army and was then punished with a random massacre of some village members, can lead to an intuitive observation: communities that cooperated with the enemy combatants were punished with acts of killing. However, the village of Hunin refused to cooperate with Arab militias, instead cooperating with its Jewish neighbours and declaring it will remain loyal to Israel. When it was occupied later in the war, it also suffered from a horrific massacre of village members. This goes to show that violence can still be puzzling and appear wanton.

How can we explain the targeting of communities that were previously peaceful and loyal, by those groups they cooperated with? More broadly, how could we make sense of this variation in which village is targeted with mass killings? Is this violence wanton and senseless? Strikingly different villages are targeted, which suggests one simple logic cannot provide a full explanation. How do combatant leaders decide in which villages to kill civilians and in which not to? What explains the variation in which communities are targeted with mass killings?

I argue that combatants face resource constraints, and thus strategically optimize their choice of target by trying to make killings transmit the message they want to the wider audience. Building on and extending insight on why civilian victimization happens (Downes 2008), I will focus on two possible logics of targeting that combatants rely on in the war, that lead them to attack radically different sets of civilian groups. In a macrolevel *defensive* position, the combatants would follow a *punitive* logic that targets villages that cooperated with the enemy, in order to punish them and thus signal to all that the violence is retribu-

tive, and discourage such cooperation. In a macrolevel *offensive* setting, the combatants would follow a *performative* logic, in which they target the most peaceful communities that cooperated with them—because that signals to all that the violence is random and no one is spares, and thus encourages flight.

I test my theory using original data on mass killings of civilians in the 1948 Palestine War, a salient case study in which the macrolevel setting changed. I show that mass killings are most likely overall at both villages that publicly cooperated with the enemy and villages that publicly cooperated with their Jewish neighbours. However, this correlation is exhibited only at certain macrolevel settings. I further use qualitative process tracing with different case studies to illuminate the findings and explore the mechanism. I show that when combatants are preparing for an incoming invasion, they target communities that cooperated with the enemy in areas in which they hold firm control. The punitive motive and fear of invasion repeatedly appear in battle directive and accounts of military leaders. In contrast, after they have successfully repelled the invasion, combatants target communities that previously cooperated with them in areas in which they are aiming to achieve territorial control. The qualitative evidence confirm that this is done to incite flight and cleanse the area.

The study is observational and exploratory, and so is limited in the extent to which it can rule out alternative explanations and isolate a causal relationship. But still it uncovers the strategic logic behind the puzzling phenomenon of attacks against previously cooperative communities. It contributes to the literature on violence against civilians because it helps explore endogenous battlefield dynamics, revealing that the logics of violence combatants follow are numerous, and studying what determines which logic operates at any given point. In doing so, I show that microlevel battle events are influenced and shaped by the macrolevel setting of the war, contributing to attempts to develop such links in the literature. The study sheds new light on violence that is seen as random, but actually is retributive and targeted, and is purposefully designed to appear random. Finally, this article is the first attempt to systematically study and rigorously analyze from a social science perspective the acts of

mass violence against Palestinians in the 1948 war, which continue to feature in debates on their nature and on whether they were the result of a coordinated strategy.

2 The Where, Who, and Why of Civilian Victimization

Strategic violence against civilians in armed conflict has puzzled scholars for a long time, and had led to a burgeoning field of research. Kalyvas (1999) first argued that acts of massacre are not 'wanton and senseless', but instead follow a strategic logic. He then expanded on this logic, focusing on informational constraints and varying territorial control in different areas, with the main aim of violence being punishing and deterring defection to the opposing group (Kalyvas 2006). Costalli et al. (2020) follow a similar logic when arguing that shifting front lines lead to changes in where the armed groups have informational and logistical capabilities, and thus where they use indiscriminate violence.

The focus of Kalyvas (2006) was on civilians using the combatant's reliance on them to settle local cleavages. Steele (2017) further explains that communities that were perceived as loyal to the insurgents in elections were attacked. Balcells (2010) follows a similar electoral argues that areas with higher political competition were more likely to experience violence. Furthermore, areas in which initial violence happened are more likely to experience violence further on.

However, this endogenous dynamic of violence in conflict was not sufficient explored and explained. Moreover, while these studies explains *where* enemy civilians are targeted and how much civilian victimization happens, they do not explain *who* is specifically targeted. Armed groups have limited resources, and thus its rare that they manage to target all civilians from the opposing group. They thus have to strategically choose who to target, to maximize the desired impact of the violence.

Also, microlevel research on violence in conflict often assumed that targeting is based on a fixed logic: some communities participated in some activity before the conflict, and thus were targeted during it. Macrolevel research also assumed that level of violence is determined by a fixed national setting. However, the macrolevel battlefield setting is fluid

and can change; and the logic that determines who is targeted does not have to be fixed throughout the war. This means that multiple different logics of violence can operate in one armed conflict—and exploring what determines which are most influential is thus paramount to properly understanding and predicting violence.

Finally, the literature often differentiates between indiscriminate and selective violence—arguing that they have contrasting causes and consequences. In practice, violence that indiscriminately targets some members of the communities can still sometimes be retributive and based on prior local activity (Souleimanov and Siroky 2016), and thus not completely random. Even more so, armed groups that can intuit the different effects of selective and indiscriminate violence could resort to using these to their advantage, intentionally making some violence seem indiscriminate even if it was not the case.

Based on this reasoning, I will develop in the following section a framework that treats the logic of targeting as based on dynamic process, choosing who to target based on the desired signal. The key foundation for this is *why* civilians are targeted. For this, I rely on the argument advanced in the classic book *Targeting Civilians in War*, in which Downes (2008) explores several notable cases, including the ethnic cleansing of Palestine, and argues that civilians are targeted for two reasons: if the group's military fortunes are bad and it wants to coerce the enemy to surrender; and if the group's aim is to annex and conquer land and so it views the population as a threat. I relate these two reasons to two different macrolevel settings, which lead to two different logics of targeting.

3 Theoretical Framework

What is the reason combatants strike some civilian communities with mass killings, while others are left unharmed? I analyze two strategic logics that guide combatant decision making. Once armed groups take over a territory that includes remaining population associated with the rival ethnic group, they can go on to harm some of the civilians randomly. I argue that they do so as a signalling tactic, to pass a message to the civilian's coethnics in areas in which they did not yet take over and in that way influence their behavior in desirable ways.

Killing civilians is an essentially costly enterprise. Recruiting and mobilizing the soldiers to do so, and then managing to successfully reach the civilians and defeat any resistance they put up, requires resources. Moreover, backlash from the enemy, third parties, or even at home is a constant risk. For that reason, it is impossible to kill the entirety of the enemy's group successfully; commanders need to be strategic with who they target, strategically optimizing who they murder. Such murder is most useful as a message to other enemy civilians, since it can influence their behavior indirectly, and thus would free resources that would have been needed to influence their behavior directly with violent coercion.

The combatants choose which strategy to follow based on the macrolevel setting. A *defensive* setting is what Downes (2008) describes as the situation in which the state's wartime fortune have worsened. This is when the shifting front lines are moving towards you, and thus shifting against you—the group is facing a successful invasion and territorial advancement by the enemy, and thus is plagued by insecurity. In this setting, the main motive of the combatant leaders would be to stop the invasion and the success of the enemy forces. Thus, their chosen logic on who to target would be based on what would lead civilians to not cooperate with the enemy

An *offensive* macrolevel setting is the coin-flip of this, the situation in which the battle lines are shifting in your favour, moving with you; this is what Downes described as territorial conquest and annexation. In this setting, the combatant leaders are much more confident and secure, and their main motive is to maximize territorial gain and ease occupation. Therefore, they would like to signal to the enemy civilians that their violence is indiscriminate, and so that no one will be spared—and so flight is the only possible solution.

These two settings match with two possible strategies. In a defensive position, the fighters follow the *punitive logic*. They will target with mass murder communities that publicly cooperated with enemy combatants or were seen to participate in the insurgency. This is the classic case of retributive violence; it is done in revenge of work with the insurgency, and directly signals to other civilians that the violence is selective—only civilians who cooperate

with the enemy forces will be harmed, and so this latches a cost to such cooperation. The goal of punitive violence is to deter other civilians from cooperating with or supporting the insurgency; the message is that if they will do so, the combatants will respond indiscriminately against the community, even if they do not know which members of that community are responsible.

In contrast, in an offensive position the fighters will follow a *performative logic* that is more complicated and somewhat counter-intuitive. They will target civilians from communities that have been overwhelmingly, and most importantly publicly, peaceful and cooperative with these combatants themselves; they would target civilians associated with their friends or allies among the rival group. This is meant to indicate to outgroup members that no one will be spared from the violence; that it is irrational, indiscriminate or random. By doing so, the combatants aim to not just deter civilians from working with the enemy, but to flee and uproot themselves completely. The combatants would believe that by showing that combative communities suffer, they will qualm rebellion; by targeting cooperative communities, they show that no one is exempt from the violence, and so incite displacement. In other words, the combatants expect that random violence would incite flight, but it less costly to actually randomize the violence, instead of saliently attacking publicly cooperative communities.

While the two logics lead combatants to target inherently different communities, I will argue that they can coexist in one war and depend on the macrolevel posture of national group in the conflict. If the group is in a defensive position, retreating due to an enemy invasion, they will adopt a punitive logic because their main motive it to stop the enemy combatants; if it is in an offensive position, taking over vast territories, they will adopt a performative logic because the not need the support of outgroup members any more and rather try to carry out ethnic cleansing. The two logics are summarized in Table 1.

This framework can lead to a few specific observable implication. In these, I focus on three types of villages: enemy cooperative; peaceful cooperators; and inactive, indifferent,

Table (1) The Logics of Targeting in Different Macrolevel Settings

	Targeting Logic	
	Punitive	Performative
Macrolevel setting	Defensive	Offensive
Primary Motive	Stop invasion	Ease Occupation
Desired signal	Violence is Retributive	Violence is Random
Who targeted	Enemy Cooperators	Friendly Cooperators

neutral villages that do not fall under these and are the baseline comparison. First, I can state expectations on the level of targeting of each of this groups throughout the war, over all. Because of these two logics, I expect that both types of active communities will be more likely to be targeted, despite choosing inherently contrasting strategies.

H1a: *Out-group villages that pursued intra-ethnic cooperation would be more likely to be targeted with mass killings than villages that did not.*

H1b: *Out-group villages that pursued inter-ethnic cooperation would be more likely to be targeted with mass killings than villages that did not.*

I can then also be more specific about the time in which each of this patterns emerges, depending on the macrolevel setting.

H2a: *Intra-ethnic cooperation would be associated with mass killings when the combatants follow a defensive strategy.*

H2b: *Inter-ethnic cooperation would be associated with mass killings when the combatants follow an offensive strategy.*

The expectation in hypothesis *H1a* and *H2a* is well supported by the literature, and evidence for similar logics of targeting has been found in many cases. However, the performative logic in which out-group villages that pursued inter-ethnic cooperation are more likely to be targeted has been less studied. This study describes how one context in which this dynamic plays out, but it is important to note the conditions under which we would expect similar targeting strategies to be used. Key to this theoretical framework are that in macrolevel setting in which the combatants follow an offensive strategy, they are no longer troubled at all by the threat of enemy armed groups. That is why they no longer need to focus on

deterring collaboration with the enemy, and can just focus on territorial occupation. This is only possible in cases of strong asymmetry in power and military capability. Furthermore, the combatants do not care for civilian denunciation because the conflict is demarcated along ethnic and national lines. Finally, this dynamic only happens because the main aim of the combatants is territorial occupation. There are many conflicts that follow these foundation of asymmetry, ethnicity, and territory; the most extreme examples are colonial occupations, because of the asymmetry in power—such as the violent repression in the French rule over Algeria and Syria .

4 Case Study

The meaning of the events of the 1948 Palestine War are situation in the middle of an intense and contensious debate, not only between Israel and Palestinian scholars but also between Israeli scholars from different paradigms (Pappé 2007). The war was monumental in shaping the Israeli-Palestinian conflict and has been shown to continuously shape modern political behavior (Haran Diman and Miodownik 2023a,b). While it has only been studied by historians until recently, quantitative social scientists have increasingly been focused on analyzing it (Muchlinski 2021; McAlexander 2023; Arnon et al. 2023). While Arnon et al. (2023) and McAlexander (2023) study the determinants of displacement, there is no existing research in the social sciences on mass violence in the war as a consequence.

Acts of civilian killings in the war are sometimes disputed, as is the case with Tantura, for example (Pappéé 2001; Pappé 2004; Confino 2012). However, the debate is often on the extent of massacre and the reason to it—Israeli veterans would argue that cases of civilian victimization were singular, isolated, due to random acts of rouge apples, and small in extent. The fact that civilians were murdered at all is not usually contested. Thus, despite controversy over the violence in the war overall, in particular with regard to its scale and goal, there is less controversy about the particularities of specific instances of mass violence. While at times the scale and brutality of certain massacres is heavily disputed (such us with the *Tantura* massacre), usually there is agreement that, at a minimum, the killing of multiple

civilians occured. This eases quantitative research. As described in the next section, I aim to carefully collect data on such cases of violence. I made sure that every case is agreed upon in the different secondary historical sources in the war; if that is not the case I relied on primary sources to determine whether there has been reliable evidence of the killing of multiple civilians. Such statistical approach allows for the rigorous analysis of the contested topic without it being biased by the debate.

In the historiography of the war, scholars tend to split it to multiple parts. The first stages were characterized first by a civil war between the warring Jewish and Arab factions, and then by the invasion of neighbouring Arab armies and militias into the disputed lands. This invasion was highly predictable, since it coincided directly with the last day of the British mandate - the 14th of May, which is also when Israel declared its independence as a state. Following this, the next phases were characterized by initial uncertainty while Israel grappled to stop the Arab invasion. A ceasefire agreed upon by the UN on June 1948 stopped the fighting for a few weeks and gave the Israeli forced time to re-organize. After the ceasefire ended, Israel carried out a successful counter attack and then a series of large-scale cleansing campaigns. This makes the case study ideal to the study of how the macrolevel settings affects patterns in microlevel events, since the former changed throughout the war substantially.

Throughout this paper, I use 'Jewish' and 'Arab' to refer to the two ethnic communities before the Israeli state was formed. I refer to these as 'Israeli' and 'Palestinian' after the Israeli state was formed, unless I am also referring to individuals from outside historic Palestine, such as with the invading Arab armed groups.

5 Quantitative Evidence

The theory above leads me to hypothesize that community behavior have an effect on violence against civilians that is conditional on the macrolevel setting of the war. It would be hard to test this perfectly in an empirically causal way, but its possible to triangulate evidence from multiple sources to see if the hypothesis and mechanism are supported as described.

5.1 Data and Methodology

The first step in testing the theoretical framework is operationalizing inter-ethnic and intra-ethnic cooperation and to observe instances of mass killings. I built on a basic village-level dataset of the 459 Palestinian communities occupied by Israeli forces during the 1948 war based on comparing the 1945 British Village Survey and the early records of the Israeli state, and then added multiple original variables to operationalize the theory.

I used the mutual protection pacts data from Haran Diman (2024), which lists Palestinian villages that signed peaceful cooperative agreements with their Jewish neighbours. This represents villages that publicly acted in the most friendly and cooperative way possible, and I argue that individuals in them are more likely to be targeted with violence over all.

In addition, I went over the accounts of how each village was occupied, in which there is information on whether foreign combatants, external to the village from different Arab armed groups, defended it in battle; I use this to build a variable representing villages that publicly cooperated with the insurgents, by hosting their forces, and expect these to also be more likely to be targeted with mass killings of their members after they are occupied.

I then collect data on all massacres in the war. In *Atlas of Palestine*, Abu Sittat (2010) curated a list of all war crimes carried out during the war by Jewish forces. I extract from it cases of mass killings, the murder of multiple civilians, and cross-reference them with the account of village battles by Morris (2004) authoritative and all-encompassing history of the war. Other resources included UN reports from the time, memoirs of former combatants, and work by Palestinian historians. I only kept cases in which multiple reports confirmed the killing of multiple civilians happened, or cases in which Israeli historians such as Morris conceded that killings happened.

I also collect data on the date of every event and in which village it was carried out. This allowed me to test the hypothesis on the determinants of violence against civilians according to time; I would expect both villages that signed peace agreements and villages that hosted insurgents to be more likely to suffer from violence against their inhabitants

by Jewish forces, but also that this relationship will be significantly stronger at different points of the war. At its beginning, and particularly after the invasion of Arab armies on the 15th of May 1948, the key determinant of who is targeted with violence is whether the civilians' village hosted insurgents; during the war's later stages, and particularly after the announcements of the "great operations", cleansing campaigns which utilized the rival's retreat, the key determinant would be whether the civilians' village signed peace agreements with its neighbour. A key point that marks this change in macrolevel setting is the first cease fire in June 1948.

Figure 1 maps the key variables across all Palestinian communities in the territory Israel took control of in 1948. On the left in red are all cases of mass killings of civilians. In the centre in green are all cases of *intra-ethnic cooperation*—when the Palestinian village hosted alien Arab military forces when it was occupied, and was thus seen to cooperate with their own group. On the right in blue are all cases of *inter-ethnic cooperation*—when the Palestinian village signed a peace agreement with the neighbouring Jewish village, and thus is seen to publicly cooperate across ethnic lines.

I also included standard controls for variables that could both influence whether a village is likely to experience mass killings and its allegiances or previous behavior. I control for variables that may explain targeting, including those relating to the village's religion (whether a village has a mosque), size (population), strategic location (elevation), and its wealth (amount of village lands). I then control for spatial variables that are related to the likelihood of inter-ethnic cooperation (distance to the partition lines and distance to Jewish villages) and for the latitude and longitude of every village, in order to control for spatial dependencies. Table 2 lists the summary statistics of the main variables. Unfortunately, data on the 1948 War is limited and so it is not possible to control for all variables, and this limits the ability of this exploratory observational study to isolate a causal effect.

With these variables included, the estimation equation of the main logistic regression model (presented in Figure 2) is $P(Y = 1|X) = \frac{1}{1+e^{-(\beta_0+\beta_1 X_1+\beta_2 X_2+\beta_n X_n)}}$ where $P(Y = 1|X)$ is

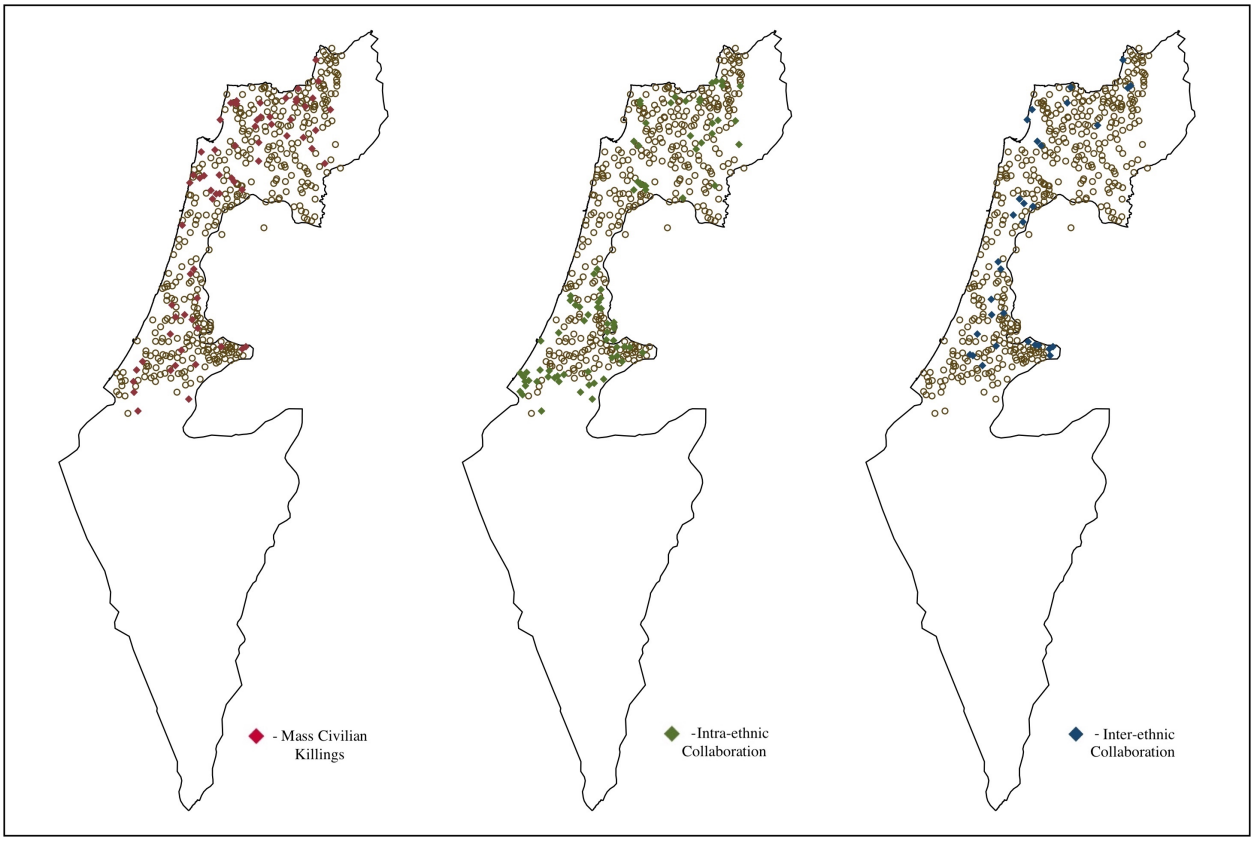


Figure (1) Spatial Dispersion of the Main Variables

the probability that a village will experience civilian killings given the independent variables, X_1 is whether the village hosted external military forces, X_2 is whether the village signed a non-aggression pact, and X_n are the control variables.

Table (2) Summary statistics of the main variables

Variables	**Mean**	**Std. Dev.**	**Min.**	**Max.**
Dependent:				
Mass Killings	0.144	0.351	0	1
Independent:				
Interethnic Cooperation	0.067	0.251	0	1
Intraethnic Cooperation	0.183	0.387	0	1
Controls:				
Latitude	32.434	0.519	31.465	33.276
Longitude	35.153	0.284	34.554	35.671
Mosque	0.281	0.450	0	1
KM to Jewish village	9.014	6.614	0.219	33.163
Population	1115.247	1761.948	10	16760
Village Lands	3578.767	5915.116	0	37204
Elevation (logged)	4.959	1.038	3.219	6.862
KM to partition line	6.658	5.549	0.016	27.026

5.2 Results

5.2.1 Both Intraethnic and Interethnic Cooperation are Associated with Mass Killings

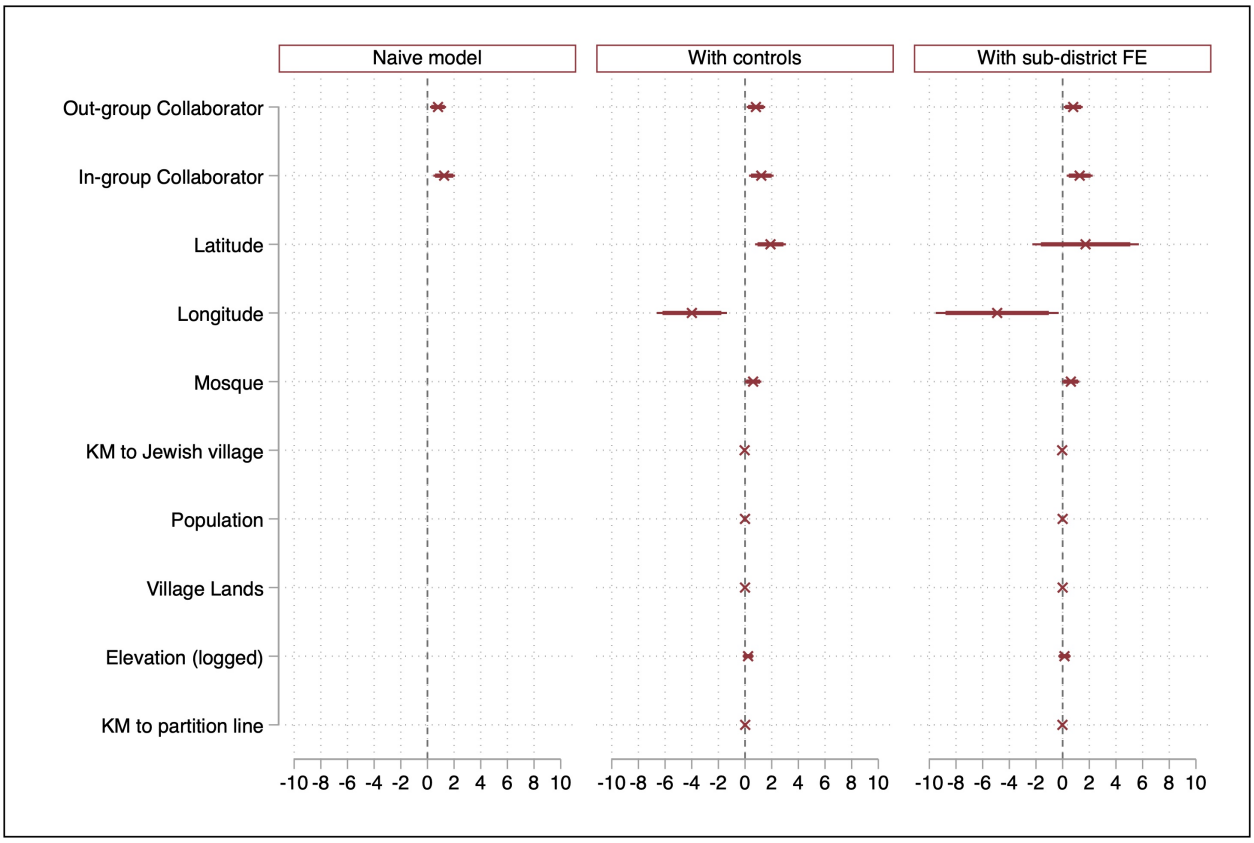


Figure (2) The Association between Community cooperation and Mass Killings

* The figure presents the results of a logistic regression model analyzing the relationship between and a series of controls with the likelihood of civilian killings to occur at every village, with the x axis plotting the coefficients of every variable from logistic regression models.

Figure 2 presents the result of the main logistic regression models, and Table 3 replicates them in a tabular format. Across all specifications, both inter-ethnic and intra-ethnic cooperation is associated with a higher likelihood of a mass killing ($p < 0.05$). This is even with varied pre-treatment controls, such as for the size of the village land and population, whether it has a mosque, its elevation, and spatial variables accounting for the village's latitude, longitude, distance to the nearest Jewish village, and distance to the 1947 UN partition line. This association also subsists with fixed effects at the sub-district level. Thus, Palestinian community's cooperation with the inter-ethnic, which is represented by hosting alien Arab military forces, corresponds to a higher likelihood Israeli combatants will indiscriminately kill civilians from that village. Perhaps more surprisingly, Palestinian community's cooperation with the intra-ethnic, which is represented by signing peace agreements with its Jewish neighbours, also corresponds to a higher likelihood Israeli combatants will indiscriminately kill civilians from that village.

Figure 3 elaborates on the substantive important of the finding. Mass killing of civilians was not a common outcome—the likelihood of villages that did not cooperate with external groups to experience them is just 15%. However, this jumps to 25% among villages that cooperated with external Arab military forces and 35% among villages that signed peace agreements with their Jewish neighbours. This supports H1a and H1b, which argued that the targeting of civilian victimization is associated with both types of cooperation.

5.2.2 Macrolevel Setting Conditions the Determinants of Killings

Figure 4 is particularly informative. It presents the results of the full model with the controls and fixed effects, but for two subsections of the sample: among villages occupied before the June 1948 Truce, when Israel was preparing for and the fighting the invasion of external Arab forces; and among villages occupied after the June 1948 Truce, when Israel was repelling the attack highly successfully and then ethnically cleansing large swaths of the land.

In the first subset, in which the macrolevel battlefield setting is defensive, the strength of the association between cooperation with the intra-ethnic and civilian targeting by Israeli

VARIABLES	(1) Naive Model Civilian Killings	(2) With controls Civilian Killings	(3) With sub-district FE Civilian Killings
Out-group Collaborator	0.795**	0.816**	0.794**
	(0.309)	(0.356)	(0.364)
In-group Collaborator	1.255***	1.220***	1.279**
	(0.417)	(0.472)	(0.499)
Latitude		1.910***	1.721
		(0.591)	(2.040)
Longitude		-3.986***	-4.913**
		(1.342)	(2.356)
Mosque		0.607*	0.617*
		(0.318)	(0.331)
KM to Jewish village		-0.0290	-0.0351
		(0.0274)	(0.0395)
Population		7.25e-06	5.70e-06
		(2.24e-05)	(2.47e-05)
Village Lands		1.68e-05	1.47e-05
		(4.32e-05)	(4.70e-05)
Elevation (logged)		0.231	0.137
		(0.209)	(0.237)
KM to partition line		0.0128	-0.0139
		(0.0320)	(0.0380)
Sub-District FE	No	No	Yes
Constant	-2.082***	74.66**	114.1
	(0.169)	(33.14)	(88.73)
Observations	459	396	387

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table (3) Replication of Figure 2 in tabular format

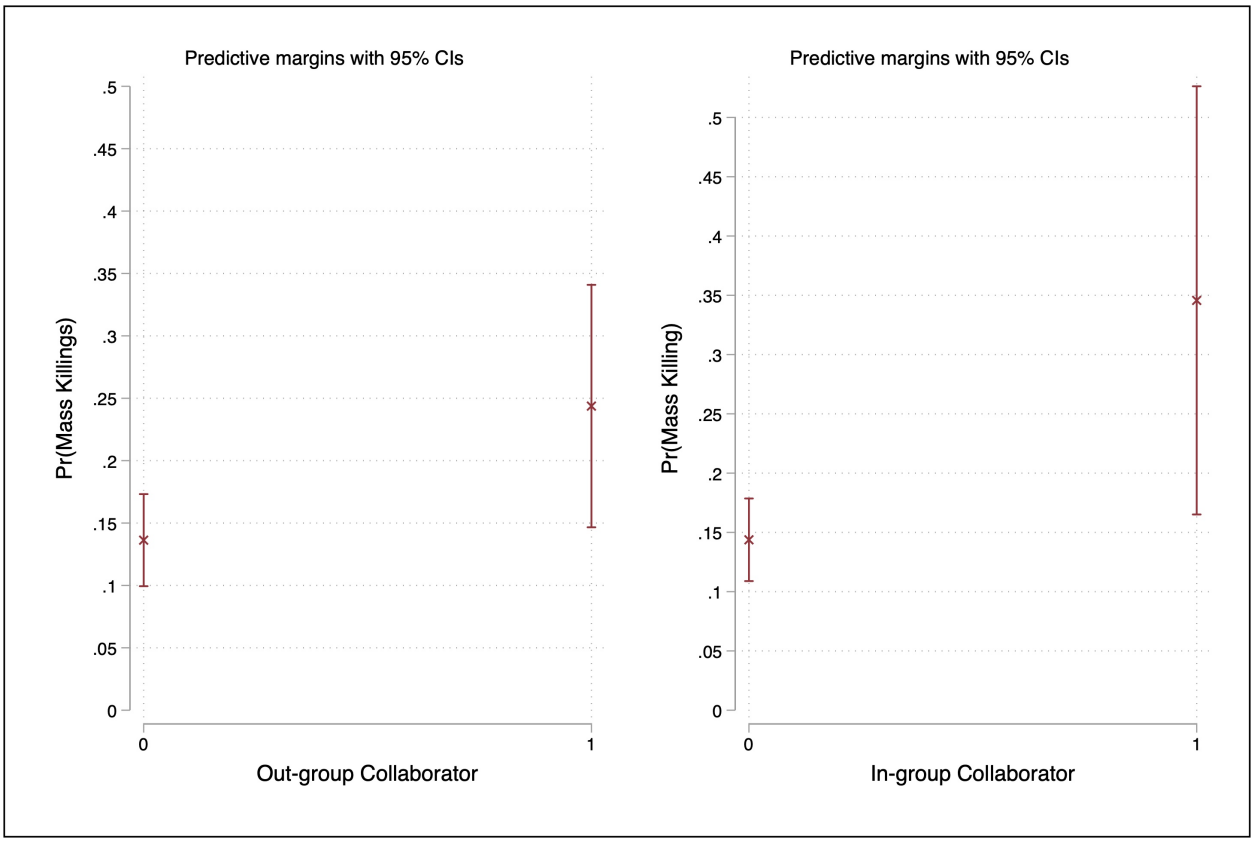


Figure (3) Predicted Probability of Killings and Community cooperation

*The figure presents the marginal probability that civilian killings will occur depending on the whether a village pursued out-group (left) or in-group (right) collaboration, with the other variables averages, based on fitted values from logistic regression models.

forces is tripled compared to the general sample ($p < 0.01$). In contrast, the association between cooperating with Jewish neighbours and civilian targeting is not statistically significant ($p > 0.1$). However, in the second sub-sample, when the macrolevel battlefield setting was offensive, the association between intra-ethnic cooperation and civilian targeting is statistically significant ($p < 0.1$), while the association between inter-ethnic cooperation and civilian targeting is not ($p > 0.1$) and is actually negative. This supports H2a and H2b: when the battlefield situation is defensive and focused on repelling attacks, the communities that are targeted are by-far those that cooperated with the invading forces; when the battlefield situation is offensive and focused on territorial cleansing, the communities most targeted are those that previously were saliently peaceful and cooperative. The difference-in-difference model described in Section 5.2.3 and detailed in Table 8 in the appendix show that this difference is statistically significant.

It is puzzling on the surface that inter-ethnic cooperation did not protect villages from massacres even in the defensive setting; but this is explained by (Haran Diman 2024): the formal model of which theorizes that while decisions over displacement follow local civilian decision making because of the need to sustain it with local groups and their stronger interest in looting land, decisions over massacres are taken by combatants at the point in which they occupy the village, and thus local civilian pressure would not matter. This perhaps why the substantial effect of inter-ethnic cooperation varies so little between the different settings. Moreover, this is why these two types of civilian victimization bear seperate examination. Indeed, there are many cases of displacement in which massacres did not occur, and even some cases of massacres in which displacement did not occur.

5.2.3 Robustness

In order to further test the resilience of the findings, I used the information I collected on the date of every event to extend the cross-sectional data into a a monthly panel. I then replicated the main model described in Figure 2 with this data, with the addition of month and sub-district fixed effects to control for spatiotemporal heterogeneity. The results

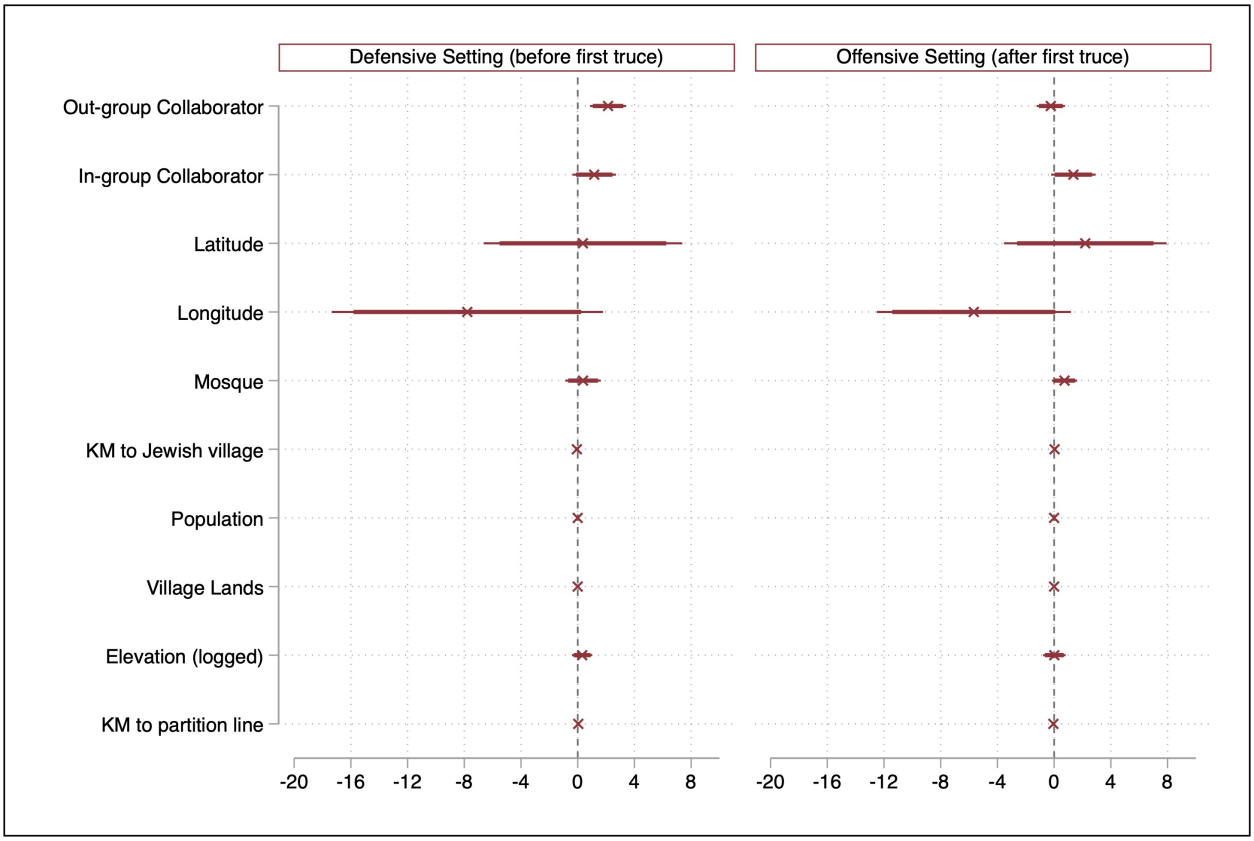


Figure (4) Community cooperation and Mass Killings Across Macrolevel Settings

* The figure presents the results of a logistic regression model predicting the likelihood that civilian killings will occur at every village, with the x axis plotting the coefficients of every variable from logistic regression models for just villages that were either occupied after (right) or before (left) the first truce.

replicate and are presented in Table 7 in the appendix.

Furthermore, this approach allows us to see the macrolevel shift as an intervention that would affect differently villages that did or did not cooperate with Jewish neighbours—leading to the possibility of a difference-in-difference approach. The results of a difference-in-difference model are presented in Table 8 in the appendix, and show that the likelihood of experiencing a mass killing is higher for villages that pursued inter-ethnic cooperation and significantly greater after the macrolevel setting turned offensive.

Finally, Haran Diman (2024) has established a statistical relationship between the UN 1947 partition plan and inter-ethnic cooperation, and also showed that that proximity to the partition lines is exogenous to local village characteristics and can thus be used as an instrument for inter-ethnic cooperation. This is because the British mandate authorities refused to collaborate with the UN committee drawing the lines, making it blind of the location and character of small villages. Moreover, it is plausible that the exclusion restriction holds in this case. The partition plan was highly salient at the start of the war; indeed, the launch of hostilities in November 1947 is accredited to the UN approval of the plan on the same day. However, the plan quickly lost its prominence, as it was erased by the battlefield reality. By early 1948 Israeli forces openly ignored the plan; (McAlexander 2023) convincingly and empirically shows that it only had an impact on battlefield dynamics at the start of the war, but had no effect on the rest of it. This is important because all the inter-ethnic pacts were signed at the first months of the war - almost all of them before the end of 1947 - when the partition plan was highly salient and impactful but while little else happened overall. Most massacres occurred much later, at least months in 1948, at which point the partition plan was irrelevant. This means that it is highly plausible that the partition plan has a particular impact on inter-ethnic cooperation, but not affected at all massacres directly or indeed due to any other variable.

I follow this approach, using the partition lines as an instrument for inter-ethnic cooperation in a two-stage-least-squares model. Table 9 in the appendix shows that even with this

specification and month and sub-district fixed effects, inter-ethnic cooperation is linked to a higher likelihood of experiencing mass killings.

6 Qualitative Evidence

The statistical analysis above allow us to see that the hypothesized relationships exist and that they are indeed conditional on the macrolevel setting. However, this still does not allow me to identify a causal effect beyond any doubt or support the proposed mechanism. I thus strive to complement the quantitative work with qualitative evidence on what made combatants kill specific civilians at different points at the war. While there are usually not enough resources on single events to allow a very deep dive into them, archival evidence on multiple events taken together can allow for the analysis of discourse over the events and of the processes that lead to them, and thus illuminate the decision making by Jewish combatants on where to pursue violence.

6.1 Research Design

While the statistical evidence show that the likelihood of mass killings is linked to specific village behaviours and that this is conditioned by the macrolevel setting pursued by combatants. However, key elements of the theoretical framework were not directly supported by this; in particular, evidence is needed on the motive for the killings being either punitive and focused on invading forces or performative and focused on cleansing, as well as changing from one to the other. The qualitative material is best served to support this assertion. Thus, I expect that the reason members of intra-ethnic cooperating communities were targeted was indeed the desire to deter such behavior among other communities, due to fear of the invasion of Arab forces. I also expect that the reason members of inter-ethnic cooperative communities were targeted is the desire to incite the expulsion of other Palestinian communities, with the aim of ethnically cleansing the broader region.

The burden of proof on both these ex-ante expectation is high. This is because my theory claims that armed groups target communities for their public behavior, and that they do so

with the intention of publicly signalling their strategy to other communities. There must be thus evidence of this public behavior by the relevant villages, and of the combatants' intention. They have no incentive to hide their intention: the optimal result for them is if it is evident known that combatants are particularly targeting intra-ethnic cooperators during the invasion, and then evident that they are targeting even inter-ethnic cooperating villages during the cleansing campaigns.

The repression of archival materials on cases of war crimes by Israeli authorities makes studying them harder, but given the above I should still be able to detect evidence for the expectation above. My research strategy is to focus on how acts of killings were justified during the war before and after they happened within the armed groups and Jewish society more broadly—given that this is often necessary in order to carry out such actions. Battle directives by the military command to combatants in the field, and evidence from Israeli historians on what was perceived as the strategic logic for attacks, is particularly useful.

While the lack of available primary materials makes proper process tracing hard, I aim to emulate the logic of doubly decisive tests. These were described by Collier (2011) as meeting both the necessary and sufficient standard to establishing causation, since they provide strong inferential leverage—confirming one hypothesis an eliminating the others. This is done by leveraging the combination of multiple tests. In particular, rival hypothesis need to be eliminated by failing to pass a 'hoop test' and the accepted hypothesis needs to be supported by a 'smoking gun' (Collier 2011). In other words, in this study, I aim to find in the case studies, at the first, invasion phase of the war, strong evidence in support of the punitive logic, while showing that the performative logic does not receive even weak support; among cases of killings that happened at the second, cleansing phase of the war, I aim to find strong evidence in support of the performative logic, while the punitive logic fails to receive even weak support.

6.2 Case Selection

For the qualitative case study research, I picked six cases of mass killings in Palestinian villages, three that occurred at each of the macrolevel settings. Due to the common lack of material on many cases, and disputes over key facts at others, I picked those cases in which there is more historical consensus and at least some information on the motive for the killings. Table 4 lists the case studies and key information on them, while Figure 5 and Figure 6 illustrate the location and timings of the mass killings. My strategy for case selection is to first pick 'classic cases' that would support the theory—villages that pursed intra-ethnic cooperation and experienced killings during the defensive setting, and villages that pursed inter-ethnic cooperation and experienced killings during the offensive setting—to look in these cases for smoking gun evidence in support of the theory. I then picked, for every macrolevel setting, cases in which the rival hypothesis is most likely—villages that pursed inter-ethnic cooperation and experienced killings during the defensive setting, and vice versa—in order to see if there is any evidence that cleansing was a motive for killings that occurred in the defensive phase or punitive measures a motive for killings in the offensive phase. This latter strategy is meant to emulate failing a hoop test. I particularly focus on case studies in which the villages pursued a dual strategy, of both inter-ethnic and intra-ethnic cooperation, because observing whether the motive for those killings matches the macrolevel setting as hypothesized is most elucidating.

Table (4) Key Information on the Qualitative Case Studies

Name	**Sub-district**	**Pop.**	**Land**	**Date Occupied**	**Macrolevel Strategy**	**Interethnic Cooperation**	**Intarethnic Cooperation**
Salama	Jaffa	6,730	6,782	28-30/04/1948	Defensive	NO	YES
Al-Ghabissiya	Acre	1,240	11,786	21/05/1948	Defensive	YES	YES
Kaf Saba	Tulkarm	1,270	9,680	13/05/1948	Defensive	YES	YES
Hunin and Hula	Safad	1,620	14,244	3/09 (Hunin) 24/10 (Hula)	Offensive	YES	NO
Tell es-Safi	Hebron	1,290	28,295	07/07/1948	Offensive	YES	NO
Safsaf	Safad	910	4,036	29/10/1948	Offensive	NO	YES

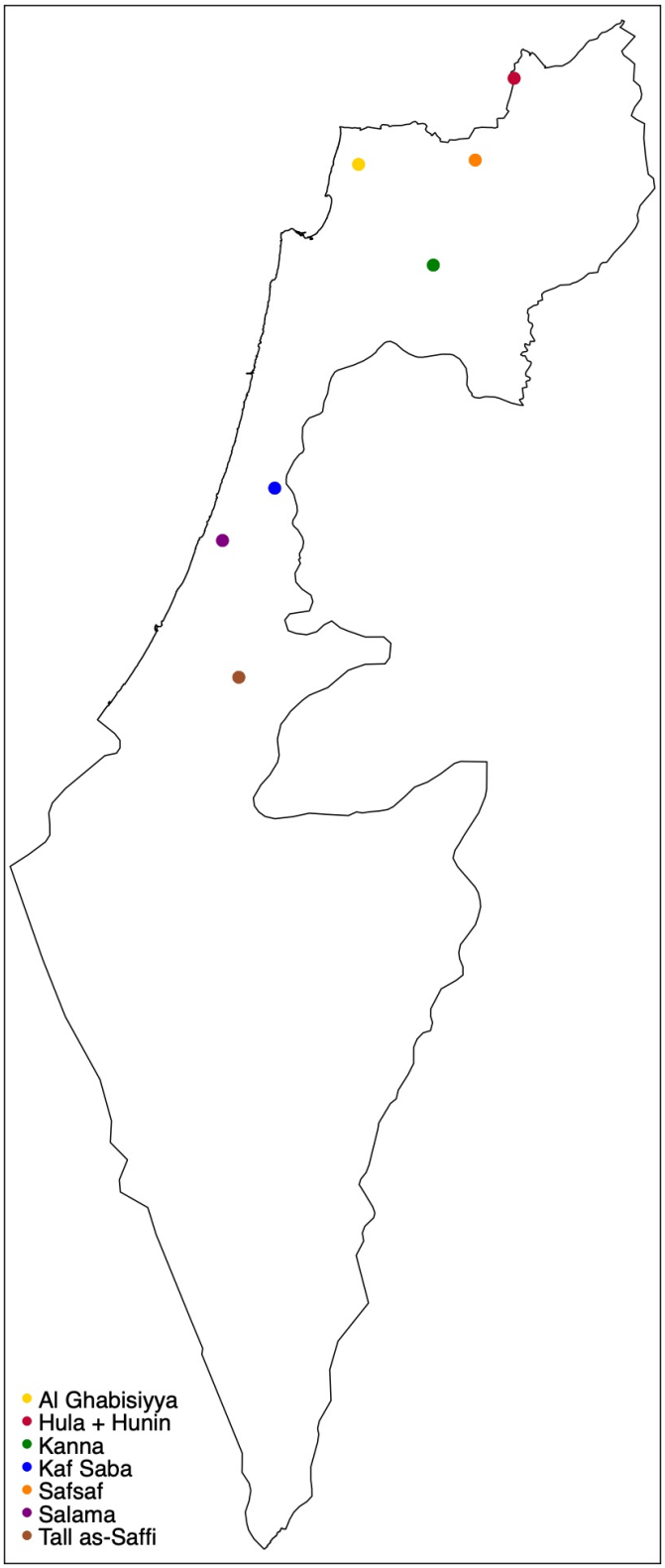


Figure (5) Location of Case Studies

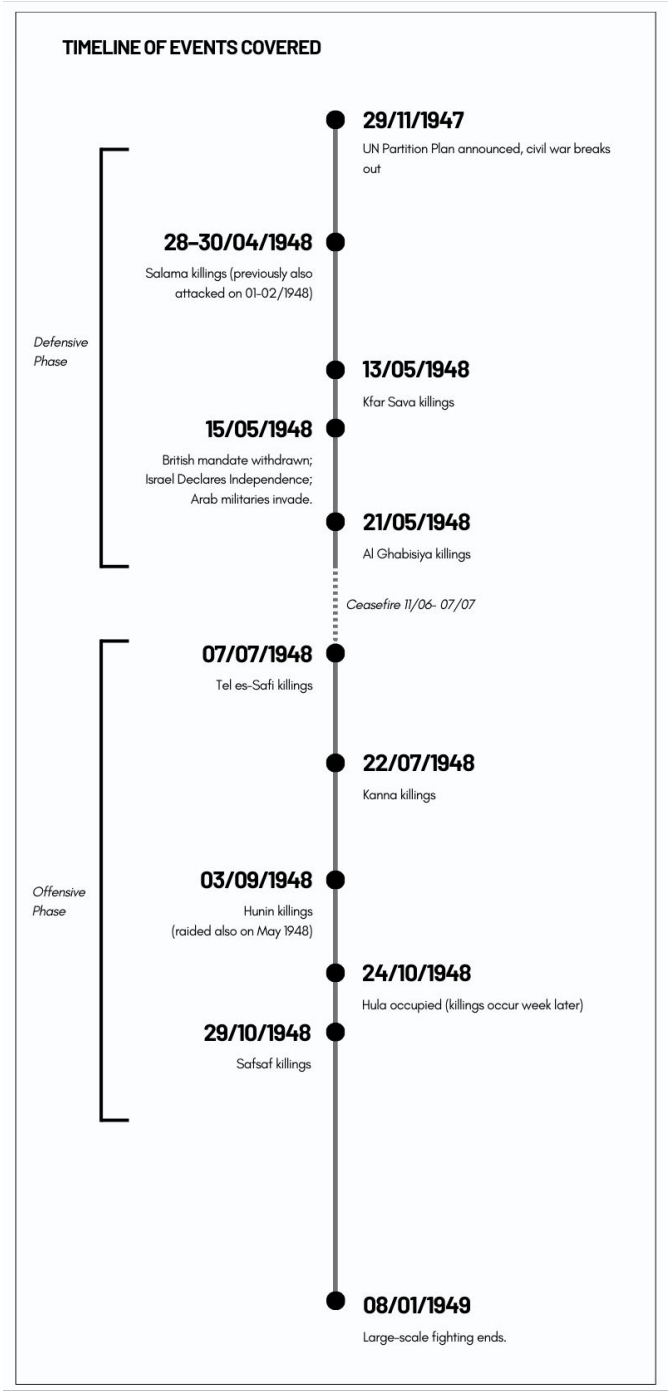


Figure (6) Timeline of Events

6.3 Defence-Phase Punitive Killings

In July 1948, as part of operation Dekel, soldiers from Israel's seventh brigade invaded the Palestinian village of Kanna in the Galilee. After some initial armed resistance from the village inhabitants, the village leaders agreed to surrender peacefully. The village inhabitants were unharmed and were allowed to stay. This is what happened in many cases—many villages did not use the help of any armed group, and instead defended themselves. Most eventually surrendered, but many of these did not suffer from brutalities as a result, even though many were still forcibly expelled.

6.3.1 Salama

However, other villages were more proactively combative. Salama is a prime example. It is located close to Jaffa, one of the main cities in historic Palestine. 7,807 Arabs lived in it in 1948, inhabiting 114,000 square meters of built houses. It was also the base of repeated military attacks against Tel Aviv in 1947, during the early months of the war. It attacked the neighbouring kibbutz Ef'al with hundreds of men. Hassan Salame, one of the most senior Palestinian military figures in the region, led villagers from Salama in a raid on Tel Aviv neighborhoods in December 1947. The force managed to penetrate them, where it fought Haggana forces. The attack eventually failed because British forces intervened. It was the first significant military attack in the sub-district (Naor 2013).

These attacks were explicitly mention in the Palmach's operational command's orders to to local combatants. In particular, it accused the village inhabitants of cooperating with other Palestinian armed forces, and used that justify the murder of civilians:

"The villagers do not express opposition to the actions of the [Arab] gangs and a great many of the youth even provide [the (Arab) irregulars with] active cooperation. The aim is ... to attack the northern part of the village ... to cause deaths, to blow up houses and to burn everything possible"[1]

[1]Operational Order, Israel Defense Forces and Defence Ministry Archive) 922/75//1213

This command offers strong evidence that the Salama's cooperation with Palestinian armed groups lead Israeli combatants to order killings in it. Was the motive for this defence against the invasion or offensive cleansing? There is strong evidence for the former. Morris (2004) writes that this order is typical to the phase of the war and that "the main aim of the raids was cautionary and punitive"[2]. Furthermore, he adds:

"The destruction of most of the sites was governed by the cogent military consideration that, should they be left intact, irregulars, or, come the expected invasion, Arab regular troops, would reoccupy and use them as bases for future attacks."[3]

Thus, this raid was a punitive measures, justified by the cooperation of the village with Palestinian armed groups, and was motivated by a military strategy primarily concerned with halting the expected invasion of Arab forces. This smoking gun evidence strongly support the defensive/punitive logic. Is there similar support for an offensive/performative logic? A simple test for whether the attack was aimed at causing flight is whether Salama's inhabitants were forced to flee. They were not forcibly expelled until the end of April, when the Haggana took Salama without a fight and forced its thousands of inhabitants to leave. The Herald-Journal reports of the fight:

"Jewish troops moved into Salamah, key Arab position in the Jaffa perimeter, without firing a shot after maneuvering the Arabs into a position where they had no choice but to withdraw."[4]

The same newspaper also extensively reports on that day on the fear of the upcoming invasion of Arab states, including unconfirmed reports that it begun. The Alexandaroni Brigade which carried out the operation was clearly happy that its punitive tactic worked—attributing the lack of resistance to the success of previous attacks.[5] Thus, the attack in January 1948 was not motivated by cleansing and offense, but by the prevailing, salient threat of attack and desire to deter combative cooperation with Palestinian armed

[2] p. 344.
[3] p. 345.
[4] Carter L. Davidson, Spartanburg Herald-Journal, 1 May 1948.
[5] 8 May 1948, IDFA 2323/49//6.

forces.

6.3.2 Al-Ghabissiya and Kfar Saba

Perhaps most informative for testing the hypotheses presented in Section 6.1 on the mechanism behind the correlations shown above is looking at cases of villages that pursued both strategies, cooperating with the intra-ethnic and inter-ethnic. The reason for attacking them is thus most insightful—does the logic of targeting match the macrolevel setting, as hypothesized, or does it not. Two such cases in this phase are Al-Ghabissiya and Kfar Saba. We would expect the most salient factor in explaining the killing to be their cooperation with Palestinian forces, and that it would not be motivated by cleansing—given that they were both occupied in close proximity to the invasion.

Al-Ghabissiya is situated in the northern part of the country. As Benvenisti (2000) reveals, the Christian village extremely closely cooperated with the Israeli forces:

"[the inhabitants of Al-Ghabissiya] maintained close ties to Jewish neighbours and had even signed an agreement to provide information to them, in return for which the Jewish forces undertook to not enter the village or harm its residents"[6]

In Palestinian accounts, the village is damned for this cooperation. Nazzal (1974) provides an emotional testimony of a Palestinian from a neighbouring village:

"There a Jewish officer interrogated us and, putting a gun to my husband's neck, said: - "You are from Kabri?" We told him that we were from the village of Sheikh Dawud. However, 'Ali Abu 'Aziz of the village of al-Ghabisiya, who was working for the Jews, said that we were lying and that we were from Kabri. The Jews took away my husband (...) an Officer came and asked me not to cry. He said he would bring my husband back, except that he had already been killed..."[7]

However, Nazzal also describes the village's dual strategy: "The people of al-Ghabisiya fought with the villagers of Kabri against the Jewish convoy to Khirbat Jiddin on March 28,

[6] p. 140.
[7] p. 71.

1948. (...) As elsewhere the villagers of al-Ghabisiya were not well-armed and sought the aid of the Arab regulars and other volunteers." (ibid). Thus the village inhabitants pursued at times both a strategy of inter-ethnic cooperation and intra-ethnic cooperation. On May 21, just a week after the Arab invasion, Hagganah forces occupied al-Ghabisiya and carried out a massacre. Was this motivated by a punitive logic due to the invasion, or a performative logic aimed at cleansing? The answer is key because as village that pursued mixed-strategy its a hard case for my theory and thus the ideal test for it. Morris' account of the massacre provides a clear answer:

"The villagers, who had helped the Haganah during the first months of the war, formally surrendered but Carmeli troops entered the village with guns blazing, killing a handful; six more appear to have been selected and executed in a nearby ditch after the conquest, apparently in revenge for alleged participation in the ambush of the 'Yehiam Convoy', in March 1948, in which 47 Haganah men had died. During the following months, some villagers resettled in their homes with IDF permission - but they were expelled in January 1950."[8]

Thus, in the midst of the Arab invasion, the killing of civilians in al-Ghabisiya, which was extremely cooperative with Jewish groups, was not motivated by cleansing—which only happened much later—but rather it was a punitive measure against the cooperation of some of the village's inhabitants with an attack carried out by other villages.

Finally for this section, Kafr Saba is another case of a village pursuing a mixed strategy during the defensive phase of the war—just days before the Arab invasion. Morris (2008) writes: "The local village militia, supported by an enlarged platoon of ALA troops, had intermittenly attacked Jewish traffic and Kfar Saba (its similarly named Jewish neighbour) during the previous months"[9] Thus, the village clearly cooperated with alien Arab military groups. However, in January 1948 the village also pursued cooperation with Jewish neighbours. As Azoulay (2014) writes: "[Kafr Saba workers] asked to maintain their friendly and neighborly relations with the Jewish workers and retain their rights. In meetings they initi-

[8] p. 254
[9] p. 164.

ated with the Jews they reached a common understanding about 'maintaining peace in our area'". According to Abu Sittat (2010), during the occupation of the village "Indiscriminate killings occur. According to eyewitnesses, 11-20 people are killed after the occupation of the village by the Haganah. After the capitulation of the village, a young man, who tries to help his elderly father leave the village, is shot."[10] Once again, Morris (2004) reveals the military logic that the Israeli military commanders followed: "Alexandroni Arab affairs expert, in preparation for the declaration of Israeli statehood and the expected pan-Arab invasion, on May 9 decided to immediately 'expel or subdue' the inhabitants of the villages of Kafr Saba..."[11]

6.4 Offence-Phase Performative Killings

The case studies above would lead reasonable observers to conclude that the logic behind the killings is straightforward, and follows previous explanations in comparative politics: the combatants wanted to punish the village for cooperating with the invading enemy forces, and so indiscriminately killed some of its civilians. However, case studies from later on in the war show that the logic of targeting underpinning civilian victimization has significantly changed. Once again, the canonical work of Morris (2004) strongly supports the theoretical framework: "The Haganah strategy of aggressive defence, consisting mainly of fighting off attackers on the perimeters of settlements peppered with occasional retaliatory strikes, gave way (...) to an offensive strategy (...) of conquest and permanent occupation of Arab sites". In other words, the macrolevel battlefield setting indeed changed from defensive to offensive, and this indeed corresponded to a focus on territorial occupation. How has this translated to the targeting of killings?

The village of Hunin in the Upper Galilee had a very good relationship with the Jewish villages neighbouring it, Metula and Kefar Gila'adi. The villagers even had a mutual protection pact with the Jewish village Manara, refusing to cooperate with and stopping attacks

[10] p. 95

[11] p. 246, quoting summary of the meeting of the Arab Affairs Advisory in Netanya, 9.5.48, Israel Defense Forces and Defence Ministry Archive 6127/49//109.

against it. The mukhtar of Hunin also reached out to Kefar Gila'adi and passes through it a message to the Israeli government, declaring its willingness to be "good and loyal" citizens of Israel (Gelber (2006): 222; Morris (2004): 249). However, the Hagana militia put out an order in late 1948: "break into the village Hunin and kill a few men. Take captives, detonate some of the houses, and burn what you can" (Shenhav 2012). The Carmeli brigade carried out the order, and while taking over the village, four women were raped and killed; twenty men were murdered, including the son of the mukhtar; and twenty houses, including the village mosque, were detonated (Hagana archive file 100/37). Notably, this was part of a cleansing operation and all the remaining inhabitants of the village were forcibly expelled to Lebanon (Morris 2004). This is strikingly different than the defensive/punitive targeting in the previous phase.

Hunin's neighbour Hula also suffered from a massacre. It was captured on October 24, 1948, with no resistance showed. Dor Yermiya, which visited the village around the same time, wrote:

"I received a report that there had been no resistance in the village, that there was no enemy activity in the area, and that about a hundred people were left in the village. They had surrendered and requested to stay. The men among them were kept in one house under guard. I was brought there and saw about 35 men (...) in the age range 15-60, including one Lebanese soldier in uniform (...) When I returned to the village the following morning (...) I found out that, while I was away, two of the troops' officers had killed all of the captives who were in the house with a sub-machine gun, and had then blown up the house on top of them to be their grave. The women and children were sent west."[12]

Key details that appear again are that, in stark contrast to the previous phase, the killings are clearly not motivated by enemy activity—which was not existent in close proximity, as Yermiya confesses—but that the combatants are focused on expelling inhabitants. There are many cases of villages with similar friendly relations with their neighbours, but still

[12]Translated in the Journal of Palestine Studies, Vol. 9, No. 1 (Autumn, 1979), pp. 154-160

suffered from civilian victimization—with the declared aim being encouraging expulsion and cleansing the surrounding areas.

One example is the case of Tell es-Safi. The village helped protect its neighbours and strongly resisted any offers of cooperation with other Palestinian soldiers. As Azoulay (2014) reveals: "Young Arabs came to Tel Assaffe village to incite the village youngsters to attack Kefar Menahem. The villagers refused and said they do not want to provoke Jews and that a ceasefire was in force". The village was occupied in mid July 1948 by the Giva'ati brigade. Abu Sittat (2010) (pp. 92-97) documented the massacre: "Indiscriminate killings occur. According to Israeli testimony, Battalion 51 of the Givati Brigade (IDF) finds ten Palestinian peasants, including a very old man, and 'liquidate[s] [them] in cold blood'".

Military documents reveal that the point of this killings was to incite displacement. The preparation commands for the operation stated its aim is to eliminate the village and cleanse the area[13]. The operational command for refereed to Tell es-Safi in particular, stating the 51st battalion should take the village, to destroy the enemy fighting force and to destroy, kill, and expel refugees encamped in the area[14]. Morris (2004) writes that the nature of the order and accompanying oral commands would have made it clear that the directive is to clear the area of all inhabitants (pp. 436-437). The official IDF history of the battle reveals that after taking the village itself, soldiers fired at houses down the slope to increase the mass flight and accompanying fear, and happily reported that the fall of Tell es-Safi led to the flight of 10,000 residents from neighbouring villages (Ayalon 1963).

Another case in which the mass killing was clearly motivated by cleansing was in the village of Safsaf. Yosef Nachmani, a highly-ranked Haggana official, revealed that the village surrendered peacefully but was still targeted: "In Safsaf, after (...) the inhabitants had raised a white flag, the [soldiers] collected and separated the men and women, tied the hands of fifty-sixty fellahin [peasants] and shot and killed them and buried them in a pit. Also,

[13]Operational order for 'David and Goliath, Israel Defense Forces and Defence Ministry Archive, 7011/49//5

[14]Operational An-Far, Israel Defense Forces and Defence Ministry Archive, 7011/49//1

they raped several women(...)". Nachmani reveals that the reason behind the massacre was inciting expulsion, but qualms that the force had to resort to such measures: "Where did they come by such a measure of cruelty, like Nazis? ... Is there no more humane way of expelling the inhabitants than by such methods?" [15].

6.5 Discussion

Table 5 summarizes the case studies and paraphrases some of the findings.

Throughout the defensive setting of the war, it is clear that Israeli armed groups have been focusing on the Arab invasion into Israel. Military documents reveal that they justify killing of civilians based on their prior cooperation with Arab militaries, and directly tie that to the need to defend against the invasion. In contrast, they do not at this point usually call for the expulsion of civilians, for encouraging flight, or for the cleansing of areas. Even in cases in which villages pursued a mixed-strategy, inter-ethnic cooperation did not matter: the village's intra-ethnic cooperation lead for its inhabitants to be targeted.

Taken together, the evidence from the case studies shows that the cleansing-motivation did not play a part in the first phase and that the punitive/defence motivation did not play a part in the second phase: both explanations fail when faced with simple, low-bar qualitative plausibility tests. However, there are multiple smoking guns showing that the logic of targeting in the first phase was indeed punitive/defensive and that the logic of targeting in the first phase was indeed performative/offensive.

Together this set of evidence lends strong support to the ex-ante expectation: that the reason members of inter-ethnic cooperating communities were targeted was indeed the desire to deter such behavior among other communities, due to fear of the invasion of Arab forces, and that the reason members of intra-ethnic cooperative communities were targeted is the desire to incite the expulsion of other Palestinian communities, with the aim of ethnically cleansing the broader region.

[15] quoted in Zertal (2005), pp. 171-172)

Table (5) Summary of Key Findings from the Qualitative Material

Name	**Macrolevel Setting**	**Cooperation**	**Motive**	**Evidence**
Salama	Defensive	Intraethnic	Punish defection	Justified by "cooperation with Arab gangs" and "expected invasion"
Al-Ghabissiya	Defensive	Both	Punish defection	Killings "in revenge for participation in ambush"
Kaf Saba	Defensive	Both	Punish defection	Killings occur "in prepartion for pan-Arab invasion"
Hunin and Hula	Offensive	Interethnic	Incite flight	"friendly and loyal", but killed and expelled in cleansing campaign
Tell es-Safi	Offensive	Interethnic	Incite flight	Command to kill and expel refugees "to cleanse the area"
Safsaf	Offensive	Intrathnic	Incite flight	Aim was "expelling the inhabitants"

7 Conclusion

The study explains a puzzling pattern in political violence: in the shadow of ethnic cleansing, perpetrators may attack their own allies among the civilian base of the enemy group in order to play "madman": deliberately make it appear as if the violence is random and absolute, and so no one is spared, and on this way incite panic. Using both quantitative analysis of a dataset of Palestinian villages in the 1948 war as well as qualitative case study evidence, I show that when armed groups face a real threat and fight a conventional civil war, they follow the classic logic of violence: attacking civilians who collaborated with the enemy in order to publicly punish them and coerce collaboration. But in the case in which the balance of power tilts in such a way that an armed group does no longer face real armed opposition, it just focuses on maximizing territorial gains via ethnic cleansing. It is in the latter setting that combatants may strategically disregard the need for cooperation with the enemy civilians and intentionally attack allies, to optimally signal that everyone must flee.

However, this study is only a preliminary exploration of the relationship between differing types of cooperation and violence in war. Further evidence is needed from other case studies and from causally robust studies to ensure that the findings are externally and internally valid. The study contributes to the literature by pointing at the strategic utility of attacks against allies in war, and further work is needed at fully exploring this phenomenon. Alternative explanations can not be fully ruled out by this study, but it points at a puzzling phenomena that warrants further inquiry.

Thinking of violence in terms of a strategic logic, in contrast to seeing it as wanton, had lead to a major leap in our understanding of political violence and civil wars. However, this study suggests that caution is warranted in seeing the logic of violence as a fixed, predetermined pattern. In practice, the logic that applies in one setting may be different in another; and the setting of one conflict can change throughout a single war, meaning that the patterns that determined targeting change. Understanding violence against civilians in armed conflict necessitates attention to both microlevel events and macrolevel processes.

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8 Appendix

Table (6) Summary of Massacres And Cooperation Across Macrolevel Settings

Setting	(1) Overall	(2) Defensive Phase	(3) Offensive Phase
Overall, Massacre	66	26	40
Overall, No Massacre	393	180	213
Inter-ethnic Coop, Massacre	10	6	4
Inter-ethnic Coop, No Massacre	21	12	9
Intra-ethnic Coop, Massacre	19	9	10
Intra-ethnic Coop, No Massacre	65	23	42
Neither, Massacre	39	12	27
Neither, No Massacre	308	146	162

VARIABLES	(1) Civilian Killings
Inter-ethnic Cooperation	1.427***
	(0.143)
Intra-ethnic Cooperation	0.774***
	(0.112)
Latitude	1.862***
	(0.637)
Longitude	-4.789***
	(0.716)
Mosque	0.369***
	(0.0963)
KM to Jewish village	-0.0563***
	(0.0122)
Population	0.448***
	(0.0538)
Land	-1.16e-05
	(8.51e-06)
Elevation (log)	0.0955
	(0.0722)
KM to Partition	0.00275
	(0.0111)
Sub-District FE	YES
Month FE	YES
Constant	102.5***
	(26.56)
Observations	6,441

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table (7) Results Replicated in a Monthly Panel with Fixed Effects

VARIABLES	(1)
After First Ceasefire	0.0887***
	(0.00657)
Inter-ethnic Cooperation	0.0573***
	(0.0182)
Difference	0.149***
	(0.0231)
Constant	0.0177***
	(0.00517)
Observations	7,812
R-squared	0.057

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table (8) Inter-ethnic Cooperation and Mass Killings: Results from a Difference-in-difference model

VARIABLES	(1) Civilian Killings
Inter-ethnic Cooperation	0.190**
	(0.0821)
Sub-District FE	YES
Month FE	YES
Observations	9,639
R-squared	0.073
F-statistic	182.230

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table (9) Inter-ethnic Cooperation and Mass Killings: Results from an Instrumental Variable Model

6 Conclusion

In the dissertation, I approach the question of why are some civilians targeted with different forms of violence in war. I argue that different types of civilian victimization—mass atrocities, preemptive flight, mass killing and forced displacement—originate by the decisions of different actors. I offer an explanation that rests on the assertion that individuals are motivated by grappling with the uncertainty that is inherent in the chaos of war, and to do so they base their decision making on information from the microlevel and macrolecel.

Palestinian civilians that are uncertain on whether to flee, because the macrolevel is unclear, rely on signals from their coethnic neighbours at the microlevel; this then is likely to determine the macrolevel outcome of the war. Jewish civilians that are unsure if to to cooperate or support the displacement of their Palestinian neighbours turn to signals from the macrolevel—the interstate, state, and sub-state systems—and then change their decision if these signals change. Combatants decide who to target with mass killings based on the macrolevel setting, and change their strategy if the setting shifts. All together, the three papers offer a framework to understand how the macrolevel setting and microlevel behaviors at war change across time and interact with each other to create the dynamic of violence in war.

The dissertation thus helps us understand better the complex process that guides violence in war. Such violence often appears wanton because it does not follow a single consistent logic—which is why a dynamic and interactive framework has particular explanatory power. This explanatory power is crucial to international security and policy making. In order to combat the global refugee crisis we must understand why and how civilians decide to flee conflict. We also need to understand why some are forced to displace—and how others manage to survive and sustain peace locally. And finally, only by understanding the strategic use of mass killings in war, we can better develop ways to prevent them from happening by making them not useful. This dissertation does not offer solutions to violence and conflict, but it does contribute to our understanding of these—and thus is the first step in developing

such solutions.

Finally, the dissertation analyses in both breadth and depth a case of armed conflict that continues to have a powerful grip on the communities that are in one of the bloodiest and most protracted conflicts in the world. The events of 1948 and the meaning they encompass cast a long shadow on the historical memory of both Israeli and Palestinian societies. A sustainable solution to the conflict is only possible if the parties involved in it reach a mutual agreement on dealing with this memory; this will only happen if the meaning of these events is processed and accepted. The dissertation suggests that the success of the Israeli forces was, in part, a result of the flight of many Palestinians, but also that violent methods such as forced expulsion and mass killings were used systematically and strategically to secure Jewish territorial control. By analysing the events of 1948 with statistical methods it is easier to reveal patterns in them that point at their rational, calculated origins, and thus provide new evidence to the 70 years long debate on the interpretation of the exodus.

It is my fervent hope that scholars of violence and conflict will continue to develop a more complete and nuanced understanding of the dynamics and interaction that lead to civilian victimization, encompassing insight from across paradigms, and noting the influence of both micro and macrolevel factors. Similarly, a data-driven approach that aims to systematically and rigorously unravel the history of the Israeli/Palestinian conflict will help mitigate the impact of the clash between ideological narratives. Only in this way we can effectively discuss and understand the root sources of the conflict, and avoid the routine and repeated resort to bloodshed.