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Abstract

What explains variation in levels of lethal violence across localities during civil wars? In particular, what explains this variation in civil wars that are not irregular, and have quite fixed and stable frontlines? In this paper, I present a theoretical framework to understand selective violence against civilians in civil wars, and I test my hypotheses with data on Catalan counties and municipalities during the Spanish Civil War. One of the main findings of the article is that ideological factors such as prewar political polarization at the local level are relevant to explain violence in this type of wars, but that there are also wartime dynamics that gain explanatory relevance once war violence has already taken place. In particular, level of violence taking place in $t_1$ appears as significant correlate of level of violence taking place in $t_2$. 
1. Introduction*

What explains local levels of violence during civil wars? Why do armed groups use extreme levels of violence in some places, and not in others that are quite nearby and have very similar characteristics (i.e. similar terrain, sociodemographic characteristics, and even geostrategic value)? What leads armed groups in conflict to target noncombatants to a greater or lower degree (that is, what leads them to act differently across time and space)?

Social scientists still do not have a clear answer to these questions, although there have been some important contributions to the topic in recent times: Kalyvas (2006) has elaborated a theory of selective violence during irregular civil wars, with a model in which armed group control of a territory and individual incentives for collaboration interact to produce different levels of selective violence against civilians. Authors such as Valentino et al. (2004) have also made a contribution to the explanation of violence by focusing on the strategic need to control civilians by the armed groups in war. Weinstein (2006) has related civil war violence to the internal structure of armed groups, explaining that those groups that have a looser control of their ranks perpetrate lethal violence at higher rates than those with tighter control mechanisms. Wood (2006) has approached the issue of variation in sexual violence during war. In the more specific topic of terrorism, authors such as Drake (1998), Sánchez-Cuenca and De la Calle (2004) and Schulhofer-Wohl (2006) have provided some micro foundations for the selection of target victims by terrorist groups.

Yet, the literature is still quite fragmentary, and there are many gaps that need to be filled both from a theoretical and an empirical point of view. One example is the lack of theoretical explanations for local dynamics of violence in civil wars that are not irregular, but that have the characteristics of regular armed conflicts: those that Kalyvas (2005) has called “conventional civil wars.” These are civil wars that “have clear frontlines, in which attacks take place mostly from barricades and stable positions, and in which there are big major battles that are usually determinants for the war outcomes” (Kalyvas 2005). Due to the

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characteristics of the warfare, in conventional civil wars the determinants of violence against both combatants and civilians are likely to be different to those in other sorts of civil wars. One of the main differences between conventional and irregular civil wars, for instance, is that -except for zones that are extremely close to the frontline- in conventional wars the control of the armed group over the population is total in all the localities under its “zone.” That is rarely the case in irregular civil wars, where control of territory is usually limited. Hence, this implies that violence in this type of war must be explained by factors different from the ones presented by Kalyvas or Valentino et al., who can mostly provide explanation to violence in wars where armed groups have imperfect control over the territory.

In this article, I aim at making a contribution to this literature. I first elaborate a theoretical framework and I present two sets of hypotheses: one set of hypotheses related to conventional civil wars in general, and one set of working hypotheses related to the Spanish civil war (1936-1939) in Catalonia in particular; the latter is derived from the former set. I then test the working hypotheses with data on violence in Catalan municipalities during the Spanish civil war, which I have collected from secondary and primary historical sources. The paper is structured as follows: in the next section I briefly outline the main characteristics of the Spanish Civil war (SCW), which works as a motivating puzzle for my research. In section 3, I present the theoretical framework and the two sets of hypotheses. In section 4, I present some descriptive statistics and maps of violence in Catalonia during the SCW, and I test my hypotheses with a large-n database with municipalities of Catalonia, using multivariate regression techniques. Finally, in section 5, I conclude the article with a summary of the main findings and avenues of research.

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1 It can be that the armed group has not a total control in the sense that there is not real “rule of law” within the territory, but what I imply with “total” control is that there is no doubt about which of the two competitors of the war dominates a territory.
2. The Spanish Civil War and its Violence. Motivating Puzzle

The Spanish civil war started with the rebellion of the military led by Francisco Franco against a legally constituted democratic government. It lasted for almost three years (18\textsuperscript{th} July 1936-1\textsuperscript{st} April 1939) and had an important number of deaths (total estimated: 800,000\textsuperscript{2}) as well as a large number of refugees (total estimated: over 440,000 externally displaced\textsuperscript{3}). The war took place between two main blocs: 1) The army of the Republican government, which also included militias of political parties (i.e. POUM, FAI, PC), trade unions (i.e. CNT) and “International Brigades” (I will include all of them under the label of “left,” even if there were important differences between them, and they had strong rivalries –see Orwell 1938). 2) The army of the rebels, the Francoists or so-called “Nationals,” which also included a regular army and different militias (i.e. Falangists, Carlists or Requetés), but which had a higher level of cohesion than the Republicans\textsuperscript{4} (I will include all of them under the label of the “right”).

In this paper I will not deal with macro-history details of the war. I instead will focus on the different armed groups and the violence they perpetrated. I will focus mostly on violence that took place in the rearguards of each side, and particularly on lethal violence against non-combatants.\textsuperscript{5} In order to make a good account of violence during the SCW, I distinguish between “selective” and “indiscriminate” violence. I consider that violence is selective if there is a selection process at the individual level, or if there is a clear identification of the victim and intentional targeting by the perpetrator. I consider that violence is indiscriminate if there is no selection process at the individual level, but at the collective level (Kalyvas 2006); that is the case when there is not a clear identification and

\begin{itemize}
\item \textsuperscript{2} Data on total deaths during the civil war is still incomplete, and different historians are involved in debates about the estimations (Martín Rubio 1997, Preston 1985, Juliá 2004). Hence, we should take this as an orientation number.
\item \textsuperscript{3} Rubio (1977), Gaitx (2006).
\item \textsuperscript{4} On September 12\textsuperscript{th} 1936 Franco took the unique commandment of the “National army.” The Republican army was unified after the militarization of the columns and the centralization of commandment in 1937, the main consequence of the so-called “events of May.”
\item \textsuperscript{5} Violence against combatants is very important, but it can be explained by military factors more than political or sociological factors.
\end{itemize}
targeting of the victim, i.e. during bombings or mass killings in towns and villages.\textsuperscript{6} In the following paragraphs, I describe the nature of all lethal violence perpetrated by both blocs during the war, that is, both selective and indiscriminate. In the rest of the paper, I will focus on the analysis of selective violence: the factors that are likely to determine the perpetration of one or the other type of violence are likely to be different (Kalyvas 2006; Valentino \textit{et al.} 2004; Downes 2007), and elaborating a theory of indiscriminate violence is out of the scope of this paper.

\textit{i) Leftist violence} has been labeled as “Red Terror,” and it consisted of “organized mass executions in most parts of the Republican zone (…)” (Payne 2004: 117), as well as non-massive executions. Hence, leftist violence took place both in the form of selective and indiscriminate violence. The estimated number of people that were victims of leftist selective violence in Catalonia is 8,352 (Solé i Sabaté and Villarroya 1986: 450). Members of the clergy constituted a big share of these victims.

Following Martín Rubio (1997), we can identify at least three moments that determined a number of forms of repression by the left:

1- Suppression of the coup: in the first moments (July 1936), the resistance in a number of localities ended with the execution of the defendants of the coup that could not evacuate their positions and that were imprisoned (selective violence). This period can be considered finished at the beginning of August of 1936 when the warring zones had been clearly delimited.

2- Revolutionary violence: assassinations that happened in those places where the coup had failed and that were dominated by the republic. It consisted of:

\textsuperscript{6} This distinction draws on Kalyvas (2006), but it is slightly different from the one made by this author, as my distinction does not have a guilt component: one can be killed selectively despite not having pursued any action such as denouncing somebody else or cooperating with the military enemy (i.e. somebody can be victimized only due to her last name, or to her political affiliation).
1- Violence that affected people in an isolated way (selective violence). This constituted the largest share of leftist violence in Catalonia.

2- Massive shootings in places where the repression reached big proportions and affected all social classes. In this modality, we can include the “sacas” and “asaltos” in different prisons (following my definition, these would be classified as indiscriminate killings).

3- Withdrawal phase: Some assassinations took place when the nationals were getting close to the area.

In addition, there was some repression within the so-called Popular Army (i.e. against deserters), and repression between parties within the left (i.e. during the “events of May,” between CNT and POUM and the Communist Party). Yet, the latter violence is very hard to quantify.

ii) Rightist violence was also both selective and indiscriminate. On the one hand, many historians consider it more terrorizing than the “Red terror” precisely because the machinery that promoted it was very well organized (Preston 1986). In those villages controlled by the right, executions affected people in a quite selective basis. But, on the other hand, the Francoist army was also responsible of mass killings in conquered places (i.e. Badajoz), and of aerial bombings against civilians. In most of the territory of Catalonia, rightist violence took place in the form of aerial bombings until the right occupied the region. With the occupation of Catalonia, rightist violence took place in the form of indiscriminate and selective killings, as the army advanced through the territories.

Rightist violence did not only take place during wartime, but it lasted several years after the war. Martín Rubio argues that postwar violence affected mostly (even if not exclusively) zones that had remained under Republican control until then, and it was articulated in two periods:

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7 The latter were supported by the armed forces of Italy and Germany, allies of Franco in the war.
-1939/40: moment of highest intensity, with a big number of judiciary processes (in April 1939 there were more than 100,000 imprisoned; at the end of 1939: 200,000).


In this paper I will count postwar violence that took place until mid-1940 as war violence. That is because most of the executed that the right perpetrated during this period (1939-mid 40s) were people that had been imprisoned during the war; these people ought to be counted as war victims.

**Can existing theories explain violence during the SCW?**

The determinants of local variation in lethal violence that have been identified in the scholarly literature so far are manifold. They range from 1) principal-agent / opportunistic type of explanations (Weinstein 2006); 2) strategic explanations related to the need to control territory (Kalyvas 2006); 3) strategic explanations related to civilians’ incentives for collaboration, and to the need to control them (Kalyvas 2006; Valentino et al. 20048), 4) ideological factors, such as polarization between and within communities (Chacón et al. 2007, Darden 2004).

Some historians have characterized violence during the Spanish civil war as the result of political factors (i.e. Ledesma 2004, Gaitx 2006). Yet, it is not empirically evident –or, at least, it has not been empirically demonstrated yet- that violence was more intense in those communities that either 1) were more politically polarized, or 2) had a higher density of political opponents to the group. Also, it is important to note that armed groups not only killed political opponents: they also assassinated people from their own political side, or people that were not identified politically. How can the latter be accounted for in a solely politically based explanation of violence?

8 “Both insurgent and government violence against civilians during war is often designed to influence patterns of civilian support” (Valentino et al. 2004).
Other approaches to violence, such as the strategic ones, can probably help us explain why armed groups killed people in their respective rearguards: for example, it is likely that armed groups decided to commit violations motivated by the need to attain consent and control of civilians, and not only to eliminate political adversaries. Yet, under the strategic approach, it is not clear what would have led to variation in levels of violence in municipalities located in the same military zone, since armed groups would have had the same incentives to kill similarly everywhere, and, as I will explain later, the incentives of civilians to collaborate with the controlling armed group would have been quite constant.

Violence during the SCW has also been explained from an opportunistic perspective: that is the case of those historians who have emphasized the anarchist character of the Republican army, and the low level of control that the Republican governmental authorities had over anarchist and communist militias that took power in most localities under the Republican side (Preston 1986; Vilar 1986). Following this approach, violence should have been higher in those places where Republican authorities could not control the militias, and lower where they could impose their rule over them. This might seem a sound explanation, but it is an incomplete one. For instance, at the beginning of the war, just after Franco’s coup, there was a total vacuum of power in most of the Republican territory. And yet, violence diverged across localities; hence, the higher or lower rank-and-file control of the Republican army does not seem to account for this variation (this approach cannot account for variation of violence perpetrated by the same armed group). On the other hand, this approach cannot explain violence carried out by the Francoist army, since the latter has been described as very well organized, with a high level of hierarchy and rank control – hence, with little possibilities for opportunistic behavior.

Hence, none of these theoretical approaches can completely explain violence during the Spanish civil war. I believe that this is due to the following reasons:

1) The factors that these perspectives highlight are not necessarily mutually exclusive; on the contrary, they are likely to combine to produce the observed outcome (violence).
2) These theories have mainly focused on two types of civil wars: a) Irregular civil wars, which are wars “in which the government or state army faces guerrilla forces that usually evade direct clashes and hide among the civilian population. Frontlines are unclear and the underlying character of irregular war is military asymmetry between the two sides” (Kalyvas 2005). b) Symmetric non-conventional civil wars, in which “two irregular armies, none of which is the government army, face each other across a frontline equivalent in a war consisting primarily of raids” (Kalyvas 2005). Yet, warfare is likely to be very different in conventional civil wars, where two armies face each other across a frontline, and where there is military symmetry between the two sides. While in irregular and symmetric non-conventional civil wars, violence against civilians is the result of the military warfare itself and the competition to achieve territory, in conventional civil wars this violence is less connected to the military struggle, because it takes place in a space separated from the battlefield (i.e. cities, towns, villages with no combatants). This is especially true in moments where the frontlines are stable and the territories controlled by each of the armed groups are well delimited: in this context, why do armies selectively kill civilians in their own rearguards? And, why do they kill more in some places than in others?

To sum up, existing approaches to intentional violence against civilians have not addressed very well the determinants of violence in conventional civil wars. Yet, since all of them are insightful, and they can provide partial explanations for violence in these contexts, I will try to incorporate them in my theoretical framework.

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9 Kalyvas (2005) distinguishes between four types of civil war according to the type of warfare that takes place within them: 1) Conventional war; 2) Irregular war; 3) Symmetric non-conventional; 4) Urban warfare. Balcells and Kalyvas (2007) estimate that 24% of the civil wars that have taken place in the world between 1944 and 2000 are conventional civil wars.

10 This does not mean that what happens in the rearguard is not important for the military struggle. The military sides need people in their rearguards to provide them with products, labor, military force, etc., and to get all this, the rearguard has to be in a “peaceful situation,” and the armed groups need to have a relatively high degree of control of their population.

11 The aim of this paper is not to test for all the mechanisms in these approaches, though.
3. Theory

In a conventional civil war, violence against civilians and against combatants takes place in clearly distinguished spaces. Combatants are generally young men who leave their hometowns (voluntarily or forcibly recruited by the army/government controlling their territory), and who engage in combat in one or different zones of the existing frontlines. A combatant can be a soldier who is in charge of a weapon, or merely one that works in any job related to the military endeavor (i.e. bridge and barricades construction, cooking, transportation, etc.).\(^{12}\) Civilians are generally isolated from the battlefield: while some may live close to the frontlines, or even go there to visit combatants, their life is somewhat independent from the events taking place in it (at least, temporarily, it is obviously not independent of these events once the battles determine the advance of one or other army into their territory).

Following Kalyvas (2006), we can think that the production of selective violence during a civil war depends on the intersection between the actions of the armed groups (which can have higher or lower incentives to pursue killings) and the actions of the civilians (which can have higher or lower incentives to give information to the armed groups, that is, to collaborate with them\(^{13}\)). Yet, the nature of the relationship between these two variables is likely to be different in regular wars than in irregular ones:

-On the one hand, in irregular civil wars, as Kalyvas explains, control over territory determines civilian collaboration and, at the same time, control is highly dependent on information provided by civilians over the existence of defectors in a particular location. This is the case because the enemy is very permeable, and any action from a defector that has not been killed in the “right moment” can provoke the loss of the control of a locality. In a conventional civil war, the latter does not happen, as the

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\(^{12}\) My definition of combatant is slightly broader than Downes (2006, 2007) who, among these military-related workers, only considers “munition workers” as combatants.

\(^{13}\) Selective violence generally requires local civilian collaboration consisting on provision of information. Otherwise, armed groups cannot identify the potential victims. Hence, while providing information is not the only form of collaboration (Petersen 2001, Wood 2003, Arjona 2007), I will focus on this one here because it is the most crucial activity for the production of selective violence.
outcomes of the war are more determined by the evolution of the battles in the frontlines than by the actions of defectors in the rearguards. Potential boycotting actions in the rearguards are, obviously, very important (that is why armed groups are obsessed with capturing spies, or fifth columnists), but they are not as crucial. In brief, in conventional civil wars information from civilians is an important variable for the production of violence, since selective violence is not possible without the information provided by locals, but –unlike in irregular wars-, it is not a determinant of war outcomes.

-On the other hand, while in any civil war civilians’ incentives for collaboration are likely to vary with level of control of a territory -as it is argued by Kalyvas (2006)-, in conventional civil wars the level of control of a territory is much more constant than in irregular wars, and it is also much less uncontested. This means that civilians should have unvarying incentives to collaborate with the group controlling them.

Again, the puzzle in this context is why groups decide to perpetrate violence in their rearguards if this violence is not crucial neither a function of war outcomes, and why this violence varies. Taking the opportunistic perspective (i.e. Weinstein’s 2006) here does not help neither: if armed groups are unitary actors across a territory, their greater or lower degree of high-and-rank control will not be able to explain variation across space. This type of explanations can help us explain variation between armed groups, and not as much to explain variation within them. I think that the puzzle can be partially solved if we decide to include additional type of factors in the functions of both civilians’ and armed groups’ behavior. Concretely, if we take into account: 1) factors that can lead to variation in level of supply of information by civilians, and which are exogenous to the military dynamics of the war (i.e. exogenous to the level of control that an armed group has over the civilians). 2) factors related to the long-term strategies of the armed groups, which are also exogenous to the military dynamics of the war, and which can lead armed groups to perpetrate violence for reasons other than obtaining information or controlling a territory in the short-term.

I will explain why and how I think these factors might matter in the following pages. Before that, I think that it is appropriate to make a list of the possible costs and benefits of the
main actions pursued by armed groups and civilians during war (these actions are assassinating and collaborating, respectively). I consider that it is crucial to think that costs and benefits have both a short and long-term dimension for all individuals. For armed groups, in the short-term, they refer mostly to winning and losing the war; in the long-term, they refer to the economic advancement of the country, and to the political support for the group.

A. Armed groups’ incentives

One particular armed group might be interested in killing civilians in its own rearguard for several reasons:

- To avoid the survival of potential supporters of the other bloc/army, or of people that may pursue boycotting activities (i.e. spies, members of the fifth column). But also in order to avoid the survival of future political enemies (i.e. in the postwar).

- To create a terror mechanism and deter defection.

- To send signals of toughness to the other side.

- To satisfy intense ideological/ethnic supporters.

But the armed group can also stay away from pursuing violence for several reasons:

- In order not to lose supporters that can get disappointed with the actions of the group, or that can feel insecure by its actions.

- In order not to lose population, which is a basic source to win the war (i.e. recruits, workers for the army), and a basic source of economic advance in the future.
B. Civilians’ incentives to collaborate

Civilians may have incentives to collaborate with the armed group by providing it with local information in order to:

- Assure protection and security from the armed group.
- Obtain food, logistical facilities, jobs.
- Assure future protection if the group wins the war (as well as potential rewards).
- Obtain ideological rewards (i.e. feeling satisfaction for collaborating with the group one identifies with).

At the same time, civilians may see costs of collaborating, and hence have disincentives to do so for the following reasons:

- Not to be considered an enemy by the opposite armed group and be punished if it gets control over the territory.
- Moral costs: if one has to collaborate with an armed group with which one has important ideological discrepancies.

We now turn to the factors that can explain the occurrence and the variation in levels of violence in the rearguards of a conventional civil war:

1) Factors than can lead to variation in level of supply of information by civilians: social and political hatreds

In a context of full control by armed groups, there may be still some variation in the level of supply of information: people might be more willing to collaborate with the armed group(s) in some localities than in others. If people do not collaborate with the armed group
(i.e. they hide threatened people, they do not provide “black lists”), selective violence is more unlikely to occur. The willingness to collaborate with the groups is likely to be determined by local cleavages or hatreds. For example, if a locality has a high level of social cohesion, citizens are likely to protect each other from any violent threat –and therefore to “veto” the perpetration of selective violence. Similarly, the supply of information is likely to be high in those localities where there is social tension, or competitiveness between social groups, where it is more likely that members of competing social and political groups decide to use violence instrumentally, in order to eliminate their rivals.\textsuperscript{14}

**Hypothesis 1**: At the local level, the higher the level of social tension or political polarization, the higher the level of violence that an armed group will perpetrate against civilians.

What is interesting is that social hatreds, and therefore level of supply of information available at the local level, can vary along time with relation to events related to the war. For instance, if people in a village have been victimized by one armed group, this can lead to relative high levels of information at subsequent points of time, when another armed group enters into the village. That is because victimized people might feel resentment or desire revenge against co-villagers who have denounced or betrayed them.\textsuperscript{15}

**Hypothesis 1.b**: Local supply of information can be endogenous to the events of the war. We can think that the higher the level of victimization in a locality in period \(t_1\), the higher the level of victimization in subsequent periods of time \((t_2, t_3, t_4, t_n)\).

2) Factors related to the long-term strategy of the groups

In a civil war, it is important to control for current defectors, but it is also important to control for future defectors, once the war will have ended. This is especially true if the two

\textsuperscript{14} It is not unreasonable to think that the leader of a political group might be more likely to include his main political rival in a “black list” if there has been a strong political competition between them.

\textsuperscript{15} Note that this is something different than arguing that supply of information is endogenous to the military actions of armed groups, i.e. level of control.
sides are clear potential rulers in the future, and if the military sides have clear political labels.\textsuperscript{16} Information about future support for the group is not observable, but it can be inferred from the public identities of individuals: hence, in a context of uncertainty about future behavior, ideological or ethnic identities are crucial in order to provide information. In other words, armed groups are more interested in targeting people that are identified with their ideological enemy (if the war is articulated around an ideological cleavage), or ethnic enemy (if the war is articulated around an ethnic cleavage).\textsuperscript{17}

\textbf{Hypothesis 2:} At the local level, the higher the observed support for the ideological/ethnic enemy, the higher the level of violence that an armed group will perpetrate against civilians.

At the theoretical level, I am not distinguishing between ethnic and ideological identities because, contrary to Kaufmann (1996), I do not think that there are differences in the way they affect dynamics of violence. Political identities are not always “difficult to assess and changeable” (Kaufmann 1996: 72), and ethnic identities are not always “fixed and unchangeable” (72). The distinction between the two is too blurry to make distinctions on the dynamics of violence they may enact. Furthermore, I do not consider that the assassinations driven by the need to control population, which Kaufmann says that happen in ideological civil wars, are exclusive of these types of wars; they are likely to take place in ethnic civil wars as well.\textsuperscript{18}

\textbf{3) Uncertainty about control}

In addition to the factors above, there is an additional variable that can be explanatory of spatial and temporal variation in levels of violence. This variable is what I call

\textsuperscript{16} For instance, if one of the groups intends to establish a communist society, it is highly important for them to eliminate the political adversaries that are defending another type of regime.

\textsuperscript{17} The identities that will be relevant (ethnic, ideological, religious, etc.) will vary depending on the dimension by which the conflict is articulated.

\textsuperscript{18} Kaufmann considers that conventional civil wars will only happen when the dividing cleavage is an ethnic one. In Balcells and Kalyvas (2007), it is shown that this is not necessarily the case, as there are many ethnic wars that take the form of irregular wars.
“uncertainty about control”. Even if the control of a particular zone is total by one armed
group, there might be different sources of uncertainty about this for the group. One of them is
temporal: at the beginning of a war, when the sides are recently created –or in the process of
being created-, this uncertainty reaches a peak. Armed groups are not certain of having a full
control of the territory, and they fear losing it in favor of the other side, which can have large
numbers of hidden supporters within the population. As the war goes by, this uncertainty
descends. Hence:

**Hypothesis 3.a**: Violence is likely to be high at the beginning of the civil war, when
armies are uncertain about their control of the rearguards. Violence is likely to decrease over
time, since uncertainty about control also diminishes.

The other source of variation is spatial. Uncertainty about control will remain high in
areas close to or on the war frontlines due to the territorial proximity with the enemy. Also,
uncertainty will be high for any group conquering a new territory. Hence:

**Hypothesis 3.b**: Selective violence is likely to be higher in those areas that are close to
the war frontline (vis-à-vis other areas).

**Hypothesis 3.c**: Selective violence is likely to peak as one armed group conquists a
new territory, and it is likely to decrease as its control over the territory stabilizes.

To sum up, I consider that variation in levels of violence in conventional civil wars is
likely to be explained by a combination of variables: 1) factors influencing the degree of
supply of local information to armed groups (such as social and political polarization); 2)
factors related to the long term strategy of the group, which influence the demand of violence
by the group; 3) factors related to uncertainty about current control of the territory by the
group, which also affect its demand of violence.
Violence in Catalonia. Working hypotheses

In Catalonia, leftist violence was chronologically prior to rightist violence: most of its territory was under republican control until the beginning of year 1939 (exceptions are those localities which were very close to the Ebro’s frontline and became part of the National side much earlier, by mid 1938\textsuperscript{19}). This means that most of the violence in the Catalan rearguard took place in two big sequences: the first one was the violence perpetrated by the left militias and the left army, from July 1936 to 1938/39. The second one was the violence perpetrated by the right army during and after its occupation of the territories\textsuperscript{20}. The determinants of violence by each of the armies are therefore likely to be slightly different. One side’s violence took place at the beginning of the fight -a moment where no lethal violence had taken place,\textsuperscript{21} while the other took place after a history of conflict in the country, and a history of killings and repression at the local level.

We can think of violence in Catalonia during the civil war as a two-stage process. In period $t_1$, selective killings (among others) were perpetrated by the left. In period $t_2$, selective killings (among others) were perpetrated by the right. In order to think about the particular determinants of selective violence in this war, in the following pages I present two simple econometric models, which should work both as heuristics and as the benchmark for the large-n empirical test I will conduct later on. At the end of this section, I present a list of working hypotheses that will be tested.

We can think of selective violence taking place in $t_1$ as explained by the Equation 1a:\textsuperscript{22}

\textsuperscript{19} This is the case of localities such as Seròs, Lleida or La Fatarella.

\textsuperscript{20} While rightist violence was quite formalized in the aftermath of the occupation of a particular territory (by means of judiciary processes, which were not necessary “clean” processes, but which would leave written documentation), it was not formalized during the occupation. This means that people were killed without going through any kind of judicial process. This is what has been called Francoist “illegal” violence.

\textsuperscript{21} There had been some political violence in the prewar period, but this was very punctual and it affected mostly urban places, where social clashes were more salient.

\textsuperscript{22} The equation includes both independent and control variables. Further below, I explain the different mechanisms that are captured by the different variables in this equation.
Sel KillingsL(t1) = β1 Uncertainty (Frontline) + β2 Polarization + β3 Support Left + β4 Sea + β5 Border + β6 Rough Terrain + μ

[Eq. 1]

Independent Variables

- **Uncertainty** is likely to increase levels of selective violence, for the reasons I have argued above. Uncertainty is likely to change over time (being higher at the beginning of the war, and lower afterwards). Uncertainty is also likely to be higher in zones closer to the war frontline(s).

- The variable **Polarization** captures the effect of different mechanisms that I have mentioned above. Fortunately, I expect these effects to be going in the same direction. On the one hand, polarization captures the strategic incentive of political leaders to eliminate local political adversaries. Politicians and other civilians from a particular political bloc could take advantage of the possibility of eliminating their current (and future) political enemies just by writing their name in a “black list” – and hence making them the target of militias. On the other hand –and connected to this-, polarization captures a higher level of information supply by civilians. In sum, we should expect that the higher the degree of political polarization in a municipality, the higher the level of selective killings in t1.

- **Support Left** also captures the effect of different mechanisms. On the one hand, it captures the incentives to eliminate current political adversaries and the willingness to create a new political and social order (i.e. an anarchist or a communist society).

---

23 Due to the nature of my dataset, I will not be able to estimate the effect of uncertainty at different stages of the war, as this is a time-varying variable and I have a cross-sectional dataset grouping all the deaths that took place in t1. Frontline is the only proxy of uncertainty that I will be able to use in the econometric model.

24 These were two different enterprises: where the anarchists of the FAI became dominant, the anarchist model was imposed (i.e. in La Cerdanya); where the UGT and communists became dominant, the communist model was imposed. The latter was the most common. After the internal confrontations between the CNT-FAI (and POUM) and the UGT-Communist Party ended (in May of 1937, with the shootings in Barcelona) –with a victory of the latter-, the communist model was imposed.
In the case of the Spanish Civil War, this was clearly the objective of revolutionary violence, which was aimed at eliminating the elements of the “Ancient Regime” (landowners, clergy, etc.), somewhat emulating the leftist and revolutionary movements of that historical era –i.e. the Bolshevik revolution of 1917 (Payne 2004). Indeed, the first victims of leftist violence were priests, landowners, local politicians and administrative chiefs, leaders of the “rebellion” or rightist leaders, who were the symbol of the old society that had to be destroyed (Ledesma 2003: 310-311). The elimination of current political adversaries also implied the liquidation of potential collaborators of the other army (i.e. spies, fifth columnists, etc.). On the other hand, this variable captures the incentives to eliminate future political adversaries –that is, all those civilians that were unlikely to support the group in the future, once the war had ended. Hence, we can expect that selective executions by the left were more likely in places that were socially and politically more conservative, since in those places the left would find more adversaries than in more leftist areas.

Control Variables

- **Sea**: Proximity to the sea captures the effect that the existence of a potential escape gate might have had on the number of assassinations taking place in a particular area (reducing them). Those feeling more threatened by the leftists had more possibilities to flee the country if they were closer to harbors than otherwise.\(^{25}\)

- **Border**: Proximity to the French border also captures the effect that being close to an escape gate might have had on number of killings. Again, it might have reduced the number of assassinations taking place in a locality.

---

\(^{25}\) Exile through sea was very important at the beginning of the SCW, and some of it was even cosponsored by the Catalan republican government (Doll-Petit 2004).
• Rough Terrain: This variable captures the effect that “knowledge” of the local terrain and difficulty of access by the armed groups might have had on violence against civilians. People could hide in the mountains or forests in order to avoid being assassinated.

In $t_2$, another armed group (the right) acquired the control of the territory. During this period, new selective violence took place. From a theoretical perspective, we can think that the same factors that explain violence by the left had an incidence on violence by the right (namely, strategic, ideological, and geographical factors). Yet, the particular variables capturing each of the dimensions can be different for each of these two instances of violence: for instance, in addition to prewar voting alignments, we can think that affiliation to the anarchist trade union (CNT) as an indicator of number of leftists in a locality, and that this might be a positive predictor for rightist violence.26

We can think of violence in $t_2$ as explained by the following equation:

$$\text{Sel KillingsR}(t_2) = \beta_1 \text{Uncertainty (Frontline)} + \beta_2 \text{Polarization} + \beta_3 \text{Support Left} + \beta_4 \text{Sea} + \beta_5 \text{Border} + \beta_6 \text{Rough Terrain} + \beta_7 \text{CNT Affiliation} + \mu$$

[Eq. 2a]

As I said, we can expect that Uncertainty was high as the right army was conquering new pieces of territory, and it steadily decreased when it gained total control over them. Hence, we can expect that selective violence would reach a peak as the Francoist army entered in a locality, and that it would decrease after some time. As above, due to the absence of temporal data, I will not be able to test for this effect with my econometric model. I include Frontline as an indicator of those zones that remained under high levels of uncertainty for a longer time.27

---

26 Prewar alignments and CNT affiliation might be correlated, but not necessarily.

27 Although I have some doubts that this variable is a good proxy for uncertainty in this case. I will run different robustness tests without including it, in order to avoid the potential problem measurement error that can be driven by its inclusion.
We can expect, for the same reasons given above that polarization would lead to increased rightist violence; due to the “need to eliminate future enemies”, we can expect support for the left and CNT affiliation would also increase rightist selective violence. As before, we can think that sea proximity and border proximity would decrease the relative incidence of selective violence, as exit gates were closer for potential targets to flee. Similarly, we can think that rough terrain would also decrease violence.

In addition to all this, following my hypothesis 1b, we should expect that the higher the intensity of violence in a particular locality in t₁, the higher the intensity of violence in t₂. A more nuanced model of rightist violence could therefore be something like:

\[
\text{Sel KillingsR}(t₂) = β₁ \text{Uncertainty (Frontline)} + β₂ \text{Polarization} + β₃ \text{Support Left} + β₄ \text{Sea} + β₅ \text{Border} + β₆ \text{Rough Terrain} + β₇ \text{CNT Affiliation} + β₈ \text{SelKillingsL}(t₁) + \mu
\]  

[Eq. 2b]

From the theoretical framework and intuitions presented so far, I derive the following working hypotheses addressing civil war in Catalan localities during the SPW:

- **WH1**: In t₁, we should expect selective violence by the left to be greater in localities with higher levels of political polarization, *ceteris paribus*. In t₂, we should expect selective violence by the right to be greater in localities with higher levels of political polarization, *ceteris paribus*.
  
  o **WH1b**: In t₂, we should expect selective violence by the right to be greater in localities that had experienced higher levels of leftist selective violence in t₁, *ceteris paribus*.

- **WH2**: In t₁, we should expect selective violence by the left to be higher in localities where the political left had received lower support in the prewar 1936 elections, *ceteris paribus*. In t₂, we should expect selective violence by the right to be higher in localities where the political left had received higher support in the 1936 elections, and in localities with higher levels of CNT affiliation, *ceteris paribus*.
• **WH3**: In $t_1$, we should expect selective violence by the left to be higher at the beginning of the war, when uncertainty about control was higher.

  o **WH3b**: Similarly, in $t_2$, we should expect violence by the right to reach a peak during the first weeks of occupation of new territories.

  o **WH3c**: We should also expect violence to be greater in areas close to the war frontline.

4. Violence in Catalonia. Descriptive Data and Empirical Test

In this section, I present some illustrative data on spatial and temporal variation in levels of selective violence perpetrated by both the left and the right during the SCW in Catalonia. To provide the reader with some context, I am including a map (Map 1) showing the geographical space of Catalonia, and its current internal county division, which is essentially the same as that of 1936-39.\(^{28}\)

\(^{28}\) The current county division of Catalonia is based on the division that was created in 1936 (which was abolished after the end of the civil war). In 1987 it was re-established by the Government of Catalonia. The only differences from the 1936 are the inclusion of three new counties (in 1988): Pla de l’Estany (which in 1936 was included in Girona), Pla d’Urgell (which in 1936 was included in Urgell) and Alta Ribagorça (which in 1936 was included in Pallars Jussa).
Map 2 shows levels of selective violence by the left during the years of the civil war (1936-38/39). It illustrates the variation in number of deaths per thousand inhabitants of the counties.\textsuperscript{29} We can observe that the left was severe in regions close to the Ebro’s frontline (i.e. Terra Alta, Urgell), but also in regions that were located far from the frontline, and even close to potential exit gates such as the sea or the French border (i.e. Alt Urgell, La Cerdanya, El Priorat).

\textsuperscript{29} The data on number of killings, as well as on population has been obtained from Solé i Sabaté and Villarroya (1989). These authors have collected data from local civil registers and the archive of “La Causa General.” They have classified the executed by their residence, not by the place they were killed. This can introduce some problems, as it does not include victims that were immigrants, and it can lead to some spatial bias due to internal migration. Some cases that were missing in these authors’ database have been completed with local historical census and war accounts; I have tried to follow the same procedure of including these victims by residence, not for place they were killed (even if I found a lot of correlation between the two).
Map 2. Leftist Selective Violence (1936-1939)

Map 3 shows the spatial distribution of rightist selective violence. Again, the data used are executions per thousand, and the denominator refers to thousands of inhabitants of the county in 1936. We can observe that this violence seems to have affected most of the counties in the territory, being especially severe in Terra Alta (in the west) and rural areas such as Les Garrigues and Concà de Barberà. The counties of Lleida’s province, in the northwest, seem to be the ones having experienced least relative repression of this kind.

Map 3. Rightist Selective Violence (1938-1953)
Figures 1-2 are two graphs (imported from two secondary sources) showing the temporal variation of selective violence by the left and the right in the territory of Catalonia. These descriptive graphs support my working hypotheses 3 and 3b: first, violence reached an important peak just after the military coup, in July 1936. Second, the highest levels of repression by the right in Catalonia took place in those months that preceded and followed the end of the war (1st April 1939); these were the months in which the rightist army occupied Catalonia.

Figure 1. Leftist Repression in Catalonia (total number of deaths, by months of war)

Source: Solé i Sabaté and Villarroya (1986).
After having seen these descriptive data, I will test the rest of my working hypothesis by means of multivariate linear regression techniques. For the regressions, I will use municipal level data, so that we can gain more empirical leverage. I will use a dataset I have built with data on 654 municipalities of Catalonia.  

I will estimate Equations 1, 2a and 2b above (with some slight variations, as I will explain). I will be using Negative Binomial II Regressions. In the following table, I present the description of the main dependent variables and independent variables that will be used:

---

30 The total number of localities existing in 1936 is 1,062, but I could not get data on all of them.

31 I use Negative Binomial because it is the most appropriate count model to be used with these data. With Negative Binomial I can correct for the overdispersion of the variance, which does not allow me to use a Poisson model.
<table>
<thead>
<tr>
<th>Name of the Variable</th>
<th>Characteristics</th>
<th>Notes and Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ExecutedLeft</strong></td>
<td>Total Number of People selectively killed by leftists in a locality</td>
<td>Source: Solé i Sabaté and Villarroya (1986)</td>
</tr>
<tr>
<td><strong>ExecutedRight</strong></td>
<td>Total Number of People selectively killed by the right in a locality</td>
<td>Includes people killed following legal procedures and not, that is both “legal” and “illegal” violence. I have collected this data from different sources, being Solé i Sabaté (2003) and Solé i Sabaté and Villarroya (1987) the most important of them.</td>
</tr>
<tr>
<td><strong>SupportLeft36</strong></td>
<td>% vote for the Popular Front in the 1936 elections.</td>
<td></td>
</tr>
<tr>
<td><strong>Polarization</strong></td>
<td>Index from 0 (minimum polarization) to 1 (maximum polarization)</td>
<td>The formula used to calculate this index of polarization is: (1-(%\text{VoteLeft36}-%\text{VoteRight}/100)^2)</td>
</tr>
<tr>
<td><strong>AffiliateCNT</strong></td>
<td>Workers affiliated at the CNT union in a locality (per thousand)</td>
<td></td>
</tr>
<tr>
<td><strong>Populationmil</strong></td>
<td>Thousand of inhabitants of a locality in 1936</td>
<td></td>
</tr>
<tr>
<td><strong>Frontline</strong></td>
<td>Dummy variable, 1 if the locality is in a county that had the military frontline in its territory at any time of the war, 0 if not.</td>
<td></td>
</tr>
<tr>
<td><strong>Border</strong></td>
<td>Dummy variable, 1 if the locality is in a county that delimitates with the French border, 0 if not.</td>
<td></td>
</tr>
<tr>
<td><strong>Sea</strong></td>
<td>Dummy variable, 1 if the locality is in a county that delimitates with the sea, 0 if not.</td>
<td></td>
</tr>
<tr>
<td><strong>Rough Terrain</strong></td>
<td>Dummy variable, 1 if the locality is in a county with “rough terrain”, 0 if not.</td>
<td>I have codified as rough terrain counties that have a relative high percentage of forest, or high mountains</td>
</tr>
<tr>
<td><strong>Urban</strong></td>
<td>Dummy variable, 1 if the locality’s 1936 census was over 5000 habitants. It codes for urbanization/industrialization.</td>
<td></td>
</tr>
</tbody>
</table>

In addition to the variables in the Equations 1 and 2, in the regressions I will also include thousands of inhabitants of the village in 1936 (Population), and Urban, a dummy variable for localities over 5,000. I include both of them in order to potential non-linear effects of size. Before estimating the models, I make sure that there are no significant correlations between any of the independent variables.\(^\text{32}\)

In Table 1, we can observe the results of the model used to estimate the relative number of selective assassinations by the left. I have included polarization and % Support Left in different equations, in order to avoid possible specification problems (these variables

\(^{32}\) One potential correlation was between % SupportLeft and CNT affiliation. This is very weak: 0.06.
are created from the same source, and capture different dimensions of the same factor: vote in the 1936 elections). Also, in Model 3, I have included the squared value of % SupportLeft (in addition to % SupportLeft) in order to capture a potential non-linear relationship between this variable and total number of deaths.

**Table 1. Determinants of Executions by the Left**

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Negative Binomial</td>
<td>Negative Binomial</td>
<td>Negative Binomial</td>
</tr>
<tr>
<td></td>
<td>DV: Total N. Deaths</td>
<td>DV: Total N. Deaths</td>
<td>DV: Total N. deaths</td>
</tr>
<tr>
<td>% Support Left 1936</td>
<td>0.004 (-0.033)</td>
<td>0.051*** (-0.012)</td>
<td>0.00049*** (-0.00011)</td>
</tr>
<tr>
<td>% Support Left 1936^2</td>
<td>-0.00049*** (-0.00011)</td>
<td>1.62*** -0.29</td>
<td></td>
</tr>
<tr>
<td>Polarization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frontline</td>
<td>0.025 (-0.135)</td>
<td>0.044 (-0.132)</td>
<td>0.101 (-0.13)</td>
</tr>
<tr>
<td>Border</td>
<td>-3.93** (-0.187)</td>
<td>-0.284 (-0.178)</td>
<td>-0.195 (-0.176)</td>
</tr>
<tr>
<td>Sea</td>
<td>-0.056 (0.123)</td>
<td>-0.025 (0.1201)</td>
<td>-0.026 (0.127)</td>
</tr>
<tr>
<td>RoughTerrain</td>
<td>-0.138 (0.135)</td>
<td>-0.1341 (0.129)</td>
<td>-0.019 (0.127)</td>
</tr>
<tr>
<td>Urban</td>
<td>2.4*** (0.231)</td>
<td>2.4*** (0.23)</td>
<td>2.42*** (0.199)</td>
</tr>
<tr>
<td>Population (*1000)</td>
<td>0.00492 (0.005)</td>
<td>0.00492 (0.00424)</td>
<td>0.0047* (0.0026)</td>
</tr>
<tr>
<td>Constant</td>
<td>1.64*** (0.223)</td>
<td>0.377 (0.27)</td>
<td>-1.52*** (0.174)</td>
</tr>
<tr>
<td>Lnalpha</td>
<td>-0.063 (0.071)</td>
<td>-0.101 (0.068)</td>
<td>-0.162 (0.073)</td>
</tr>
<tr>
<td>Alpha</td>
<td>0.939 (0.067)</td>
<td>0.903 (0.062)</td>
<td>0.85 (0.062)</td>
</tr>
</tbody>
</table>

|                  | Observations = 654 | Observations = 654 | Observations = 653 |
| Wald Chi2 (7) = 195.95 | Wald Chi2 (7) = 258.61 | Wald Chi2 (9) = 311.43 |
| Prob>Chi2 = 0.0000 | Prob>Chi2 = 0.0000 | Prob>Chi2 = 0.0000 |

We can observe that polarization has a significant effect in explaining leftist violence, and that support for the left only has an effect when introduced in a non-linear form. Hence, it seems that the higher the polarization of the municipality, the higher the number of executions by the left. While these results do not allow us to reject WH1, they do permit
reject WH2. Indeed, it is not empirically true that there were more killings by the left in more conservative places. The rest of the variables in the models do not appear as statistically significant. Only the variable border appears as statistically significant in Model 1, and it goes in the direction that I expected: the closer the proximity to the French border, the lower the total number of executed.

I decide to explore a little bit further the results of the variable polarization in model 2, which seems, after all, the only relevant correlate explaining leftist violence. If we calculate the predicted number of leftist executions by the estimated Model 2, and we plot them together with the level of support for the left in the 1936 elections, we obtain the scatterplots in Figure 3.

*Figure 3. Predicted Number of Executions by the Left ($t_1$), by level of electoral support*

In the picture on the left there are all cases in the sample (except for one outlier that did not allow us to see the distribution of the scatterplot). In the picture of the right I have taken out the group of outliers that are clustered between levels 60 and 80 of predicted number of events –which (non-surprisingly) correspond to the biggest towns in the territory. In this second figure, we can perfectly see how the relative level of assassinations is predicted to reach a peak at the highest levels of prewar polarization (that is, when both the left and the right had around 50% of the votes in the 1936 elections).
In Tables 2 and 3, I present the results of the regressions used to estimate executions by the right. In Table 2, the models correspond roughly to the one in Eq. 2; in Table 3, it corresponds roughly to the one in Eq. 2b. In Table 2, polarization appears as a relevant explanatory variable. The variable Urban also appears as statistically significant, in addition to Population. Interestingly, in this regression we can also observe that affiliation to the CNT has a positive effect of rightist violence. This implies that the right was probably more severe in leftist enclaves, which had higher levels of anarchist affiliation.

Table 2. Determinants of Executions by the Right

<table>
<thead>
<tr>
<th></th>
<th>Model 1 Negative Binomial</th>
<th>Model 2 Negative Binomial</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DV: Total N. Deaths</td>
<td>DV: Total N. Deaths</td>
</tr>
<tr>
<td>% Support Left 1936</td>
<td>0.0017 (0.034)</td>
<td>----------------</td>
</tr>
<tr>
<td>Polarization</td>
<td>0.999*** (0.315)</td>
<td></td>
</tr>
<tr>
<td>CNT Affiliation</td>
<td>0.034*** (0.015)</td>
<td>0.034** (0.015)</td>
</tr>
<tr>
<td>Frontline</td>
<td>0.018 (0.124)</td>
<td>0.028 (0.124)</td>
</tr>
<tr>
<td>Border</td>
<td>-0.42*** (0.12)</td>
<td>-0.379*** (0.1163)</td>
</tr>
<tr>
<td>Sea</td>
<td>-0.055 (0.124)</td>
<td>-0.035 (0.124)</td>
</tr>
<tr>
<td>RoughTerrain</td>
<td>-0.107 (0.132)</td>
<td>-0.105 (0.126)</td>
</tr>
<tr>
<td>Urban</td>
<td>1.4*** (0.163)</td>
<td>1.4*** (0.162)</td>
</tr>
<tr>
<td>Population (*1000)</td>
<td>0.003*** (0.000443)</td>
<td>0.003*** (0.00044)</td>
</tr>
<tr>
<td>Constant</td>
<td>1.44*** (0.2)</td>
<td>0.607** (0.299)</td>
</tr>
<tr>
<td>Lnalpha</td>
<td>-0.684 (0.089)</td>
<td>-0.7 (0.089)</td>
</tr>
<tr>
<td>Alpha</td>
<td>0.504 (0.045)</td>
<td>0.49 (0.044)</td>
</tr>
<tr>
<td>Observations = 444</td>
<td>Observations = 444</td>
<td></td>
</tr>
<tr>
<td>Wald Chi2 (7) = 278.03</td>
<td>Wald Chi2 (7) = 288.96</td>
<td></td>
</tr>
<tr>
<td>Prob&gt;Chi2 = 0.0000</td>
<td>Prob&gt;Chi2 = 0.0000</td>
<td></td>
</tr>
</tbody>
</table>

33 I have replicated the analyses in Tables 2 and 3 taking out all the cases of localities that were located close to the war frontline –just to make sure that there is not a bias due to possible clustering of most violent events in places with higher degree of uncertainty of control (that is, zone 4) – especially as far as leftist violence is concerned, and I obtain practically the same results. I have run the same equation in Table 3 without including the variable “Frontline” – in order to avoid the inclusion of a variable with problems of measurement due to the changing nature of the frontline during Francoist occupation of the territory. Again, the results do not change. All of these robustness analyses are available from the author upon request.
In Table 3, I obtain almost the same results than in Table 2. I also obtain evidence quite supportive of the idea that there were dynamics “tit-for-tat” as the variable “number of executed by the left” has a positive and significant effect on number of executed by the right.\textsuperscript{34}

\textbf{Table 3. Determinants of Executions by the Right (II)}

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DV: Total N. Deaths</td>
<td>Negative Binomial</td>
<td>Percentage Support Left 1936</td>
<td>0.0043</td>
<td>0.01**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.032)</td>
<td></td>
<td>(0.004)</td>
</tr>
<tr>
<td>Executed Left</td>
<td>0.01**</td>
<td>(0.004)</td>
<td>0.01**</td>
<td>(0.004)</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td></td>
<td>(0.004)</td>
<td></td>
</tr>
<tr>
<td>Polarization</td>
<td>--------</td>
<td>0.78**</td>
<td>--------</td>
<td>(0.31)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.31)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CNT Affiliation</td>
<td>0.035**</td>
<td>(0.016)</td>
<td>0.036**</td>
<td>(0.016)</td>
</tr>
<tr>
<td></td>
<td>(0.016)</td>
<td></td>
<td>(0.016)</td>
<td></td>
</tr>
<tr>
<td>Frontline</td>
<td>-0.064</td>
<td>(0.13)</td>
<td>-0.043</td>
<td>(0.13)</td>
</tr>
<tr>
<td></td>
<td>(0.13)</td>
<td></td>
<td>(0.13)</td>
<td></td>
</tr>
<tr>
<td>Border</td>
<td>-0.41***</td>
<td>(0.12)</td>
<td>-0.37***</td>
<td>(0.117)</td>
</tr>
<tr>
<td></td>
<td>(0.12)</td>
<td></td>
<td>(0.117)</td>
<td></td>
</tr>
<tr>
<td>Sea</td>
<td>0.003</td>
<td>(0.124)</td>
<td>-0.028</td>
<td>(0.124)</td>
</tr>
<tr>
<td></td>
<td>(0.124)</td>
<td></td>
<td>(0.124)</td>
<td></td>
</tr>
<tr>
<td>RoughTerrain</td>
<td>-0.066</td>
<td>(0.13)</td>
<td>-0.08</td>
<td>(0.126)</td>
</tr>
<tr>
<td></td>
<td>(0.13)</td>
<td></td>
<td>(0.126)</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>1.103***</td>
<td>(0.202)</td>
<td>1.14***</td>
<td>(0.198)</td>
</tr>
<tr>
<td></td>
<td>(0.202)</td>
<td></td>
<td>(0.198)</td>
<td></td>
</tr>
<tr>
<td>Population (*1000)</td>
<td>-0.02**</td>
<td>(0.009)</td>
<td>-0.02**</td>
<td>(0.008)</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
<td></td>
<td>(0.008)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>1.24***</td>
<td>(0.196)</td>
<td>0.756**</td>
<td>(0.29)</td>
</tr>
<tr>
<td></td>
<td>(0.196)</td>
<td></td>
<td>(0.29)</td>
<td></td>
</tr>
<tr>
<td>lnalpha</td>
<td>-0.742</td>
<td>(0.093)</td>
<td>-0.75</td>
<td>(0.092)</td>
</tr>
<tr>
<td></td>
<td>(0.093)</td>
<td></td>
<td>(0.092)</td>
<td></td>
</tr>
<tr>
<td>Alpha</td>
<td>0.475</td>
<td>(0.044)</td>
<td>0.47</td>
<td>(0.043)</td>
</tr>
<tr>
<td></td>
<td>(0.044)</td>
<td></td>
<td>(0.043)</td>
<td></td>
</tr>
</tbody>
</table>

Observations = 423
Wald Chi2 (9) = 233.3
Prob>Chi2 = 0.0000

Observations = 423
Wald Chi2 (9) = 239.47
Prob>Chi2 = 0.0000

Standard Errors in Brackets
Sig Level: *.1, **.05, ***.001

\textsuperscript{34} In this table, the variable population takes a negative coefficient, which is strange. I suspect that this might be caused by measurement error, due to internal and external migrations during the war that might have changed the total number of inhabitants of the municipalities. I have run the same regressions without including this variable –but including the variable Urban in order to control for size–and the results do not change.
From the results of the model 2 in Table 3, we can make some post-estimations and see the relationship between prewar electoral patterns, war violence by the left, and war violence by the right. Figure 4 shows the relationship between predicted levels of rightist violence and prewar electoral support for the left: it shows a somewhat inverse u-shape relationship between these two variables—indicating that violence reached a peak in the most polarized places. Yet, this u-shape relationship is much less clear than the one I have observed for the violence by the left in Figure 3.

Figure 4. Predicted Number of Executions by the Right ($t_2$), by level of electoral support

In Figure 5, we can see a scatterplot of the relationship between predicted values of rightist violence, and the real values of leftist violence. We can see that the estimated model predicts a somewhat linear relationship between these two variables.

---

35 Again, I have taken out the outliers in the x-axis, two cases with more than 300 deaths.
In general, the results from the empirical test show there was a significant relationship between political characteristics of a municipality in the prewar period –mainly, prewar political polarization- and violence perpetrated by the armed groups. This is supportive of my working hypothesis 1. Additional micro level evidence (i.e. narratives) would be useful in order to prove that the mechanism I have defended to be taking place (higher polarization leads to higher degree of supply of information by civilians) is the one captured by this econometric result.

One issue that arises from the results in Table 3 and Figure 4 is the following: we observe in t₂ the right was more prone to perpetrate violence in most polarized places, but we do not know the extent to which this was because of: 1) prewar hatreds; 2) hatreds created by the events of the war (and, mainly, violence during the war); 3) both. That is the case because violence in t₁ is also explained by prewar polarization. Hence, it is very hard to disentangle the effect of these two variables (polarization and previous killings), as they can be affecting each other recursively.\textsuperscript{36}

\textsuperscript{36} In Table 3, we can see that the coefficient of Executed Left is the same in Model 2 (including polarization) than in Model 1 (not including polarization). This can be indicative that the effects of these two variables are independent.
In order to try to isolate the effects of these two variables, I proceed by selecting a number of localities that, being very similar in their prewar levels of polarization, went through very dissimilar levels of violence during the war. In this way, I will then be able to observe if they present different levels of violence in period $t_2$, and maybe isolate the effect that violence in $t_1$ had on them. In Table 4, I have included the mean values of both total number of deaths and deaths per thousand inhabitants\(^{37}\) for two selected subsamples of localities. Sample 1 are localities that had high levels of political polarization in the prewar\(^{38}\) and that experienced very low levels of violence during period $t_1$ of the war;\(^{39}\) Sample 2 are localities that also had high levels of political polarization in the prewar, but that experienced high levels of violence\(^{40}\) during period $t_1$.

<table>
<thead>
<tr>
<th>Sample 1</th>
<th>Sample 2</th>
<th>Difference (Sample 2 – Sample 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.a</td>
<td>1b</td>
<td>2a</td>
</tr>
<tr>
<td>(Low rate of deaths $t_1$)</td>
<td>(Low number of deaths $t_1$)</td>
<td>(High rate of deaths $t_1$)</td>
</tr>
<tr>
<td>Mean ($t_2$)</td>
<td>1.94</td>
<td>2.22</td>
</tr>
<tr>
<td>(1.75)</td>
<td>(1.54)</td>
<td>(299)</td>
</tr>
<tr>
<td>Observations</td>
<td>90</td>
<td>50</td>
</tr>
</tbody>
</table>

\(^{37}\) I include the division by sub-samples following both rate of deaths and total number of deaths in order to obtain more robustness.

\(^{38}\) These are those that have a polarization index higher than 0.9 (that means around 60% of votes for one party and 40% for the other).

\(^{39}\) I code as such those localities that had less than 2 deaths per thousand inhabitants for sample 1a, and 1 death or less for sample 1b.

\(^{40}\) I code as such those localities that had more than 5 deaths per thousand inhabitants for sample 2a, and 15 deaths or more for sample 2b. Even if the difference between 2 and 5 deaths per thousand inhabitants might not seem substantial, these are approximately the quartiles of the distribution: below 2 I have approximately 34% of the cases, and above 5, I have approximately 33% of the cases. They imply, in substantial terms, a big difference.
From the results in this table, we can infer that victimization in $t_1$ was a crucial variable explaining victimization in $t_2$. Indeed, places that were highly polarized and experienced high levels of violence by the left present a much greater mean in both number of deaths and rate of deaths vis-à-vis places that were also highly polarized but that experienced very low levels of violence/no violence by the left. The differences between the means of the samples are statistically significant.\footnote{I have tested if the differences in these means are statistically significant, and they are so at the 95\% level (when using total number of deaths), and at 90\% (when using rate of deaths). These statistics are available from the author.}

In order to get more robustness on this finding, I have done similar calculations for sub-samples of places that were not polarized in the prewar.\footnote{I coded as such those that had a Polarization index under 0.8.} Despite obtaining smaller sub-samples,\footnote{15 cases for places with victims, 20 cases for places with no victims.} we can compare them with the results above. In Figure 6, I show these differences in average number of deaths in $t_2$, by polarized and non-polarized places. Again, the results show that number of deaths in $t_1$ had a strong impact on the number of deaths taking place in $t_2$. This happened in both politically polarized settings and non-polarized ones.

\textit{Figure 6. Average Number of Executions by the Right ($t_2$), by Type of Locality and Number of Executions by the Left ($t_1$)}
To sum up, the results of the empirical test have been quite supportive of my working hypotheses, even if not totally. On the one hand, the evidence has been supportive to my WH1, WH1b and WH3. However, it has not been very supportive of WH2, as I have not observed that left violence was more intense in places that voted more conservative in the 1936 elections, or that rightist violence was more intense in places that voted more leftist. Yet, I have observed that rightist violence was more intense in places with higher levels of CNT affiliation, that is, in places where the anarchists had more implantation and social support, and this indicates that the right was probably committing greater violence in places that were socially more leftist. On the other hand, almost none of the geographical variables have appeared as significant; only proximity to the French border has appeared as relevant in order to explain violence by the right, reducing its severity (as we had expected). This finding is interesting, as it might be consistent with the idea that the right was more ideologically motivated than the left in its killings: in places where threatened leftist had more possibilities to escape, the right did not kill as many people.

5. Conclusions

In this paper, I have tried to explain dynamics of violence against civilians in civil wars, with a particular focus on the so-called conventional civil wars. I have focused my empirical test on the Spanish civil war, and on localities of Catalonia, in particular. This paper has focused on a very particular type of violence –what I have called selective violence; I am aware that the results obtained could be different for other types of violence –i.e. massive killings, bombings--; but exploring these other forms of violence was out of the scope of this paper.

The results of the article have interesting implications for the understanding of dynamics of violence in civil wars in general. First, variation in levels of violence appears to be partially explained by strategic factors such as control and uncertainty about control: violence reaching a peak at the beginning of the war in the Catalan case is supportive of this idea (and the same with the peak observed during and after the occupation of new territories
by Franco’s troops). Second, variation in violence appears to be also explained by differences in local political and social dynamics: social hatreds and enmities can affect the production of violence by increasing the level of local information supplied to armed groups. These social hatreds and enmities can have their roots in events and factors exogenous to the war (i.e. prewar disputes and social tensions), but also to events endogenous to the war (i.e. denunciations and executions): in the Catalan case, we can observe that while prewar political polarization matters in order to explain violence by both the left and the right, war-related events such as executions by the left also matter in order to explain violence by the right.

Third, the results show that armed groups may act differently towards people that they perceive as political enemies of the future. In Catalan localities, it seems that the left did not perpetrate higher levels of violence in more conservative places. The right, instead, seems to have been more severe in those places that had a strong social anarchist support. This evidence, which we need to regard with analytical caution, implies that the right might have been more interested in annihilating political enemies than the left.\(^44\) In general terms, this also implies that there is some room for ideological type of factors when explaining armed group’s behavior in civil war contexts.\(^45\)

I consider that the different findings of this paper are important for the analysis of civil wars in general. Among other things, I consider that the findings here favor the idea that we need to study different types of war—as characterized by the nature of their warfare—as separate units.\(^46\) It is not the same to understand spatial and temporal variation of violence in irregular wars such as the current war in Colombia, than in regular was such as the American or the Spanish one. The differences between these wars, which might seem located in a macro-level, have clear implications for micro-level dynamics and outcomes. In relation to the latter, the results obtained in this paper point towards the idea that macro-cleavages and

\(^{44}\) We have to be aware that many historical accounts show that the leaders of the left militias were also interested in annihilating further political enemies (i.e. members of the church, landowners, etc.). But still it is interesting that these ideological motivations do not appear as significant when we perform rigorous empirical analyses.

\(^{45}\) In other words, this evidence calls into question the extent to which all armed groups can be treated as homogeneous units in theories of violence.

\(^{46}\) In this sense, I am following a very recent avenue of research (Kalyvas 2005; Balcells and Kalyvas 2007).
processes (i.e. local political polarization along the left-right divide) are unlikely to be detached of the reality that people live at the local level, as they might be determinant of local levels of violence. Yet, these macro-cleavages might lose explanatory power as events such as killings of friends, relatives or neighbors have taken place (that is, after a war has started); these events can become quite determinant for individual behavior and local dynamics of violence in future periods of the war.
## Descriptive Statistics of Independent and Dependent Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
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<td>41.027</td>
<td>0</td>
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<td>20.3222</td>
<td>0</td>
<td>431</td>
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<td>9.662071</td>
<td>142.265</td>
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<td>3000</td>
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