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Death is in the Air: Bombings in Catalonia, 1936-1939*

La muerte está en el aire: los bombardeos en Cataluña, 1936-1939

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Key words

Civil war • Political violence • Bombings • Spain

Abstract

This article analyzes variation in bombings during conventionally fought civil wars. It establishes a number of hypotheses based on a theoretical framework that emphasizes the role of political factors in accounting for violence. In addition, it takes into account emotional factors such as citizens' revenge aspirations. The hypotheses are tested with data on bombings perpetrated by the Francoist side in 1,062 municipalities of Catalonia during the Spanish Civil War (1936-1939). The results confirm that the aerial strikes are positively related to local political support for the rival group in the pre-war democratic elections, as well as to executions perpetrated by the rival group during the war. The former is consistent with the political hypothesis; the latter is consistent with the revenge hypothesis.

Palabras clave

Guerra civil • Violencia política • Bombardeos • España

Resumen

Este artículo analiza la variación en los bombardeos que tienen lugar durante guerras civiles de tipo convencional. Se plantean varias hipótesis partiendo de un marco teórico que pone el acento en el papel de los factores políticos para explicar la violencia. Además, se tienen en cuenta factores emocionales como las aspiraciones de venganza de los ciudadanos. Las hipótesis se ponen a prueba mediante datos sobre los bombardeos perpetrados por el bando franquista en 1.062 municipios de Cataluña durante la Guerra Civil española (1936-1939). Los resultados confirman que los ataques aéreos tienen una relación positiva con el apoyo local al bando contrario en las elecciones democráticas de preguerra, así como con las ejecuciones perpetradas por el grupo rival durante la guerra. El primer resultado coincide con la hipótesis política; el segundo, con la hipótesis de la venganza.

Introduction[1]

Within the conflict and security studies literature, the study of bombings and other forms of so-called «indirect» violence has very often been dissociated from local political factors. The use of this type of violence, which since WWII has been frequent in any war where armed groups have heavy artillery and aerial technology at their disposal[2], has usually

* The Spanish version of this article can be consulted at http://reis.cis.es and http://reis.metapress.com

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[2] The use of air weaponry became widespread during

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been regarded as a mere warfare tactic, unconnected with politics. In the context of civil wars, bombings have mainly been understood as either a bargaining strategy or as a tactic for armed groups to win territories; for example, they have not been regarded as a tactic to annihilate particular groups of individuals[3]. In the context of interstate wars, bombings against civilians have been considered instrumental both from the perspective of eliminating the enemy's resources and in terms of morally diminishing it (Friedrich, 2006). Spatial variation of bombings has rarely been accounted for in any of these approaches.

In this paper, I introduce local politics into the study of bombings, and I focus on conventional civil wars (hereafter also CCW), which I argue have been rather overlooked in the civil war literature. Following recent work (Balcells and Kalyvas, 2010), I distinguish CCW from irregular and symmetric non-conventional civil wars. The main dimension along which these civil wars are distinguished is the technology used both by rebel groups and incumbents. In CCW, there is a military symmetry between the two sides: they are fought between incumbents and insurgents using heavy artillery. Consequently, CCW «have clear frontlines, where 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). One of the main differences between CCW and irregular or guerrilla wars is that —except for territories that are extremely close to the frontline— the control of the armed groups over the population is overwhelming in all the localities in their «zone». In irregular civil wars, areas of total control are much scarcer, smaller and less stable. This implies that whereas violence against civilians in irregular wars is the likely result of warfare itself and the competition to achieve territory (Mao Zedong, 1978; Valentino *et al.,* 2004; Kalyvas, 2006; Vargas, 2009), such violence in CCW is not so connected with the military struggle, as it takes place in a space separated from the battlefield (i.e. cities, towns, villages with no combatants)[4].

The theory presented here draws from a broader context, and it belongs to a wider research agenda which also considers other forms of wartime violence and other types of civil wars (Balcells, 2010a). This paper, however, focuses on indirect violence which takes place during conventional civil wars. I argue that, contrary to what is usually thought, bombardments and other forms of indirect violence (usually regarded as indiscriminate violence) display some degree of selectivity; in other words, these attacks may deliberately target collectivities or groups of people; thus, they are not necessarily indiscriminate. This has clear-cut implications for the factors that have to be taken into consideration when trying to understand variation in indirect violence across space and time. In this paper, I theorize about these factors, and I present observable implications that are tested with data on bombings that took place in Catalonia during the Spanish Civil War (1936-1939).

Theoretical framework

In this paper, I refer to a typology that distinguishes between direct and indirect violence during civil war (Balcells, 2011; 2010a). They are both intentional forms of violence, and the main dimension over which they diverge

World War II, thanks to the technological development during World War I (Overy, 1980). According to Stanley Payne, the Spanish Civil War was the first conflict of the 20th century in which the air force played an essential role (Payne, 2010: 471).

3 Particularly so in the case of violence taking place during conventional conflict, and less so in the case of violence taking place during irregular wars (Kocher *et al*., 2011).

4 Kalyas's (2006) seminal theory on violence in civil war does not apply to conventional civil wars, as it is based on irregular conflict.

is their technology of production. *Direct violence* is defined as violence that is perpetrated with light weaponry (e.g. guns, knives, shotguns, machetes) in a face-to-face type of interaction between perpetrator and victim. This includes, for example, individual or mass executions. Because armed groups usually require collaboration (e.g. information, help to find suspects) from civilians of a locality in order to perpetrate direct violence, its production is characterized by depending upon civilian agency, in addition to that of armed groups. *Indirect violence*, in contrast, consists of violence perpetrated with heavy weaponry (e.g. tanks, fighter planes), which does not require face-to-face interaction with the victims. Because of its technology of production, indirect violence is unilateral from the side of the group, giving very limited agency (if any) to civilians[5]. Furthermore, indirect violence may be perpetrated in areas where the armed group has no territorial control (e.g. through aerial strikes). This makes indirect violence fundamentally different from direct violence, as the latter can only be perpetrated under conditions of presence of the group in the territory inhabited by its would-be targets.

What explains indirect violence during civil war? More specifically: why do armed groups decide to target certain places and not others? The literature on International Relations and International Security has focused mainly on studying bombings in order to understand the relationship between violence against civilians and the determinacy to win and coercion (Pape, 1996; Horowitz and Reiter, 2001). For example, Arreguín-Toft argues that in asymmetric conflict, by means of barbarism (i.e. attacking civilians) the strong actor seeks to coerce its weaker opponent into changing its behavior by inflicting pain (destroying its values). This strategy has been used to destroy an adversary's will and capacity to fight (2001: 102). Instances of indirect violence are usually considered intrinsically indiscriminate, and they are assumed to be related to these coercive strategies. As a consequence of this, the literature has focused mostly on the consequences of violence for war outcomes, and has not provided us clear-cut predictions on the location and timing of violence within a single conflict. Moreover, in the context of an interstate war, since all civilians on the enemy side can be considered supporters of the enemy (Friedrich, 2006), they can all be considered equally susceptible to being targeted; thus, aside from tactical and strategic factors, we have no *a priori* reasons to think that some localities should be more intensively targeted than others[6].

The civil war literature is not much more helpful in providing us with explanations for variation in indirect violence. The literature on counterinsurgency has tended to focus on the impact of indiscriminate violence on civilian behavior (Kalyvas, 2006; Lyall, 2009; Kocher *et al.,* 2011), coming to the conclusion that this violence is generally counterproductive. While not referring exclusively to this type of violence, authors who have focused on the determinants of civilian victimization have argued that it is related to the balance of power between contenders (Ziemke, 2008; Hultman, 2007; Vargas, 2009; Boyle, 2009). Ziemke (2008) argues that massacres are perpetrated in order to drastically resolve the war, and she predicts to reach the highest levels in the latter stages of a war, and to increase with the length of the war. She also argues that greater losses on the battlefield lead to increased civilian victimization. Similarly, Hultman (2007) predicts more intense

[5] For example, civilians cannot veto a bomb being dropped from a plane or a missile being fired from a tank.

[6] Only recently have some works referred to eliminationist victimization during interstate war, which tends to occur in wars of territorial annexation and is aimed at removing members of a target group from a certain piece of territory (Downes, 2008; Downes and Chochran, 2010).

violence against civilians by rebels when they are losing on the battlefield. She argues that this violence works as a «cheap and easy» military strategy to raise the government's costs for standing firm and continuing fighting (Hultman, 2007: 206). Vargas (2009) predicts violence to be greater when there is a shift in the balance of power, as violence is instrumental for bargaining purposes. While all these approaches are somewhat helpful in understanding temporal variation in violence, they are not able to explain spatial variation in violence[7]. Many of these works are also limited in that they are either explicitly or implicitly inspired by the nature of warfare in irregular conflicts. In CCW, the distinction between combatants and noncombatants is clearer than in irregular wars (Balcells, 2011; Kalyvas and Balcells, 2010), so the bombing of rearguard territories is likely to generate a relatively larger share of civilian victims; I argue that this makes bombings in CCW considerably less due to military factors, although these obviously also play a role[8].

Following previous work, I argue that when violence against civilians takes place in the rearguard territories of CCW, this is motivated by the determination of armed groups to clear these territories of «strong enemies», that is, people who have strong identities due to prewar mobilization. In CCW, when there is no prewar political mobilization, violence against civilians is irrational from the side of the armed group (Balcells, 2011; 2010b). If armed groups' resources are limited, why would they use them to attack civilian populations in zones under full control of the enemy forces? Unless this occurs near the frontline, it is unlikely to generate any warfare benefits, or to change the military balance of power[9]. In this context, violence is only rational if aimed at eliminating potential threats in the rearguards, and if these threats are represented by mobilized supporters of the enemy —those who could constitute «fifth columns» or challenge the control of the territory.

In order to generate a clear set of hypotheses, let's imagine a hypothetical country where a civil war has erupted after a period of intense political confrontation between political parties A and B, whose platforms are now championed by respective armed groups, A and B. The citizenry of this country has been mobilized along the A-B cleavage. The two groups, which fight a conventional war with relatively stable frontlines, enjoy exclusive military control of relatively large areas from which they have excluded the rival group. According to the definition of CCW, one group has full control over a relatively large area of territory, whereas the other group cannot gain access unless it wins battles and proceeds to militarily conquer. Relevant interactions in the territory controlled by A involve combatants of this group and all civilians living in it. In addition to confronting B on the battlefield in order to increase the share of territory under its control, A is interested in getting rid of strong supporters of B (hereafter, also B_{SS}), who are perceived as a potential threat. The group can do this by means of direct violence (i.e. executions) or indirect violence (i.e. bombings). With respect to direct violence, the group will perpetrate it in the territory where it has territorial control; indirect violence, in contrast, will be perpetrated in areas where the group has no territorial control, but which it can reach with bombs[10].

[7] An exception is Boyle (2009), who derives implications for spatial variation in violence in the current conflict in Iraq (i.e. they are conditional on the ethnic composition of localities).

[8] Obviously, in any civil war «both parties to a conflict will target strategic locations such as crossroads, bridges, ports and airports held by the opponent and invest resources to protect them» (Hegre *et al.*, 2007: 5).

[9] As is exemplified by many instances during the American Civil War, restraint is also an option for armed groups (Neely, 2007).

[10] It makes no sense for groups to bomb territories under their own control, as this would harm their infrastructures and resources.

Within the territory controlled by A, spatial variation of direct violence (i.e. across localities) depends not only on the groups' incentives to target the localities, but also on the degree of civilian collaboration the groups find at the local level. The latter makes violence more or less possible —this is especially the case where groups do not have local information (e.g. where the perpetrators are not from the locality). Thus, the extent to which groups perpetrate violence in those locations where they have an interest in pursuing it (i.e. where strong supporters of the enemy are identified) is constrained by civilian agency. Because in a mobilized context political motives prime the decisions of civilians, and because civilians are rational and strategic, direct violence peaks in places with higher levels of political competition and/or a more even balance of power between groups. In these places, local civilians strategically push for killings —in other words, they enhance the lethal actions of the group—, for this is likely to generate a change in the local state of affairs (to their benefit), and this does not endanger them (Balcells, 2010; 2011).

At the same time, as this is a CCW, we can assume that B (like A) is a well-equipped armed group, which has heavy artillery allowing shelling from land (in places close to the frontline), sea (in places close to the seashore), and air (presumably, anywhere). In addition to using this technological capacity to attack A on the frontlines and/or in militarily strategic enclaves, B can choose to deploy some of its resources to attack civilian locations in A's rearguard. These attacks, while barbaric, can be perpetrated on a selective basis; that is, the group may decide to kill civilians in a particular locality and not another[11]. B is likely to attack places hosting strong supporters of the enemy group, i.e. A_{SS}. Given the degree of imprecision of indirect types of attacks such as bombings, B can only make sure that they are targeting A_{SS} by attacking locations with a relatively large share of these supporters. Hence, if we conceptualize the degree of support for a group —and therefore the relative number of strong supporters— in a locality with the level of electoral support for the group during the period preceding the civil war, we can hypothesize that the greater the prewar electoral support for a group, the greater the likelihood that a locality will be the target of lethal indirect violence by the enemy group. In civil wars fought along ethnic or religious lines, the demographic characteristics of municipalities (i.e. percentage of members of groups living in them) can be also useful indicators of the degree of support for the armed groups, and therefore predictors of the likelihood that they will be targeted with indirect violence.

Despite the existence of stable frontlines, in wartime contexts, information on violent events (e.g. regarding the brutality of attacks) is likely to spread across the territory. Refugee flows have usually been a source of information about events occurring on the other side of the frontline (in recent times, mass media do the job). At the same time, during CCW, armed groups might be interested in sending signals to their own constituencies or supporters, in order to maintain their support and enhance mobilization (Gagnon, 2004). For this reason, armed groups might be interested in attacking specific locations in the enemy's rearguard in order to retaliate for the previous killings of their supporters (i.e. in a place where their supporters are widely known to have been repressed). These retaliatory attacks, explained by what I call «emotional motives», can be expected to take place in non-initial phases of the civil war, and to become more frequent as the war goes on and as direct violence by the rival group continues to take place.

[11] This choice will very often be necessary for armed groups because their resources are not unlimited. Furthermore, genocide is not always in the strategic interest of the military leaders (Valentino *et al.* 2004).

Additional Observable Implications

In a framework where armed groups are targeting civilians with the intention of cleansing rearguard areas of strong enemies, we may assume that the group will have an interest in eliminating strong supporters of the enemy regardless of their place of origin. Areas hosting internally displaced people who are associated with the rival group, B (e.g. civilians who are fleeing from areas that are occupied by A), may be more targeted (directly and indirectly) by A because of this. Although theorizing about displacement is beyond the scope of this paper, targeting internally displaced people is an implication of the above model —where political identities are an informational shortcut for armed groups. Steele (2010) has observed, for example, that in the civil war in Colombia massacres by the paramilitary were more likely in locations with a greater density of internally displaced people (IDPs), e.g. people who have fled from paramilitary control zones. At the same time, this behavior of armed groups may also stem from a strategic type of framework; for example, groups may be sending a signal to their own constituents, persuading them to stay on their side and deterring them from fleeing. Finally, with these kinds of attacks, armed groups may reduce the degree of support that refugees show toward the other side, which comes across as unable to protect them (Kalyvas, 2006)[12].

To wrap up, in the context of a conventional civil war, armed groups —equipped with heavy weaponry— are likely to perpetrate indirect violence in zones outside their territorial control in order to pursue military objectives; this will imply the targeting of geostrategic enclaves (e.g. big cities, harbors, communication nodes, etc.). However, political and emotional factors are also likely to play a role, leading groups to attack places with a greater density of potentially strong enemies, as well as places that have victimized their supporters in previous stages of the war. Finally, we can assume that groups will be interested in indirectly targeting locations with a greater density of internally displaced people, driven by a combination of political, emotional and strategic motives. The inclusion of political and emotional factors makes the theoretical framework here slightly broader than that of the existing literature, which has focused either on military factors (Pape, 1996), bargaining considerations and/or the military balance of power between groups (Hultman, 2007; Boyle, 2009; Vargas, 2008), or on a combination of military and political factors, but which has left emotional variables out of the picture (Kocher *et al*., 2011).

Empirics

In the previous section, I introduced a set of hypotheses on the determinants of indirect violence during conventional civil wars. In general terms, I have argued that, in addition to foreseeing military advantages, armed groups are likely to bomb places politically dominated by their enemy in order to maximize the probability of eliminating strong enemies. Furthermore, I have tentatively argued that, as the war develops, emotional factors gain relevance in explaining bombings; this makes the localities where civilians (i.e. A's supporters) have been victimized by the enemy (i.e. B) more likely to be targeted (i.e. by A). These types of factors obviously come into play once the civil war has been going on for some time, and once other forms of violence (i.e. executions) have already taken place in the localities.

I will use evidence from the Spanish Civil War in order to test these hypotheses. The Spanish Civil War began as a military coup against a legally constituted democratic government. It lasted for almost three years (18

[12] In other words, by attacking IDPs, groups might not only be sweeping the rear territories of potential enemies, but also manipulating civilian emotions in their favour (i.e. provoking fear and terror in order to prevent defection and flight from the area under control).

July 1936-1 April 1939) and generated around 800,000 deaths and over 440,000 externally displaced[13]. It took place between two main political blocs: 1) the army of the Republican government, or Loyalists, which also included militias of political parties, trade unions, and the International Brigades. I include all of them under the label of «the Left», even though there were important differences between them, including intense rivalries that eventually led to violent clashes; 2) the army of the rebels (Francoists or Nationalists), which also included factions of the regular army and various militias; I include them all under the label of «the Right».

During the war, the Right perpetrated indirect violence, mainly through aerial bombings, and they did so more extensively than the Left. The intervention of the Condor Legion and Mussolini's military forces, which, it has been said, were testing their equipment before WWII (Payne, 2010), contributed to this. Besides being used for military purposes, bombings of rearguard territories have usually been considered randomly (i.e. non-systematically) distributed across localities, their only aim being to induce terror among the population: «Bombing raids on Spanish cities such as Madrid and Barcelona were often undertaken without any military targets in mind, but simply to frighten the Republican population into submission» (Leitz, 1999: 130). It is beyond discussion that, in the perpetration of indirect attacks, agency corresponded to the main commanders of each army. In fact, despite the alliance with the Italian and German armies, Franco kept close control over the actions of these foreign armed forces[14]. The General would decide whether to bomb rearguard cities (full of civilians) or not: «During the years 1937 and 1938, Franco gave the order not to bomb any urban center without his explicit consent» (Solé i Sabaté and Villarroya, 2003: 78). No civilian agency is attributed to these attacks, although sometimes local «fifth columnists» would be crucial by giving instructions to military commanders on the time of day and the location where most civilians would be congregated (e.g. in the attack of the city of , in Catalonia, on May 31st 1938, as indicated by several testimonies[15]).

Several primary and secondary sources on the Spanish Civil War suggest that targeting was largely based on the political loyalties of individuals. In relation to this matter, there is more qualitative evidence concerning direct rather than indirect violence; indeed, I have not found any official military files explicitly resolving bombing locations based on the political identities of their citizens[16]. However, there is some secondary historical evidence supporting the hypothesis that political alignments were crucial to the perpetration of indirect violence. For example, in the city of Madrid, no bombs affected the «conservative» neighborhood of Salamanca as a result of explicit orders from Franco (Solé i Sabaté and Villarroya, 2003: 56). Something similar happened in the city of Barcelona (Roig, 2007). More indirectly, Llaó reports a conversation with a man who learned about the bombing of the locality of *El Perelló* by Fascist forces, which seemed somewhat «puzzling» because the location was not strategic from a military point of view. «The man

[13] Data on total deaths during the civil war is still incomplete, and various historians are involved in debates about estimations (Salas, 1977; Martín Rubio, 1997; Preston, 1986; Torres, 2002; Juliá, 2004). Hence, the figure corresponding to deaths should be taken as a rough estimate. Data on refugees is also very fragmentary, and should be viewed with caution.

[14] Here I shall not enter into the debate on the attribution of responsibilities for specific attacks, e.g. the slaughter committed in Guernica by the Condor Legion. For a detailed account of this attack, see, among others, Solé i Sabaté and Villarroya (2003:82-92) or Vidal (1997).

[15] Anonymous Interviewees. Personal communication, April 2007.

[16] In any case, according to Neely (2007), if we seek to understand the causes of violence, it is more helpful to look at actual violence rather than to examine archives on grand military strategy, which may misreport real violence.

asked, 'Who won the elections of 16 February 1936?' When we answered that the Left had won, he replied, 'Well bombed it is, then'» (Llaó, 2006: 9).

Obviously, the qualitative evidence above is not sufficient to validate the hypotheses. In this section, I perform a fine-grained empirical test with data on violence from all 1,062 municipalities of Catalonia in 1936. The region of Catalonia is located in the northeast of the Iberian Peninsula; it is delimited by the Mediterranean Sea to the East, and it has borders with France and Andorra to the north and with the Spanish region of Aragon to the west. Catalonia was under Republican control during most of the war, and it was conquered by the Nationalist army in an offensive that began immediately after the Nationalist victory in the Battle of the Ebro (July-November 1938) (Reverte, 2006)[17]. As the Nationalist army advanced in 1938, it conquered Lleida and some parts of the western areas of Catalonia, which were «combat zones» for a while. One of the most affected areas was *Terra Alta*, in the southwest, as well as parts of the midwest (*Pallars Jussà, Segrià, Noguera, Alta Ribagorça*). The use of aerial attacks combined with well-organized land forces made it a ferocious occupation, leading to the surrender of Catalonia on 13 February 1939. Direct violence took place in Catalonia in two stages: initially (from July 1936 to 1938/39), violence was perpetrated by leftist militias and the Republican army; subsequently (during and after its occupation of the territories), violence was perpetrated by the Nationalist army and right-wing militias[18]. As for indirect violence, this took place in the form of aerial bombings by the Nationalists from 1936 until they occupied the region[19].

I use data only for the region of Catalonia because this is the only territory of Spain for which I have been able to collect fine-grained (i.e. municipal-level) data on bombings, as well as on the number of casualties as a consequence of strikes[20]. We can assume that the patterns observed in this region are, however, generalizable to other areas of Spain, as well as to other countries experiencing conventional civil wars. There are no reasons to think that the dynamics explaining spatial variation in bombings should be different in this territory vis-à-vis others. In fact, the qualitative evidence seems to suggest that these were quite similar (e.g. selective bombings of Madrid neighborhoods by the Nationalist army resemble those in Barcelona). Also, the strategy of using micro-level data on violence in a single country —or a single region in a country— has already proved useful in comparative research (e.g.

17 During the SCW, one of the most stable frontlines was the one created along the Ebro River, which divided the region of Aragon into two sides. Few localities close to the Ebro frontline were conquered by the Nationalists in mid-1938; the first Catalan town to be occupied by the Nationalist army was Lleida (3 April 1938).

18 Rightist violence did not only take place during wartime, but lasted several years after the war.

19 In Catalonia, bombings were perpetrated by the Nationalist army, helped by the Fascist air forces of Italy and Germany. While the Republican army also bombed localities within the territory of Catalonia, this happened almost exclusively in places located on the war frontline, or in places affected by battles at the end of the military struggle (Solé i Sabaté and Villarroya, 1987). Specifically, these locations were: *Gandesa, Horta de Sant Joan, Móra d'Ebre, Valls, Serós, Sort* (Solé i Sabaté and Villarroya, 1986). In the analyses here, these Republican bombings will not be taken into account.

20 Solé i Sabaté and Villarroya (1986) have collected local level data on number of bombings (disaggregated by date), as well as on number of lethal casualties directly linked to these attacks. These authors have used different primary sources: all the civil registers in Catalonia; Defense Council of Catalonia (*Junta de Defensa Pasiva de Cataluña*) documentation —located in the National Archive of the Spanish Civil War in Salamanca; local archives and newspapers published at the time. The triangulation method pursued by these historians offers us a great deal of reliability. There are no similar sources of data for the other regions of Spain. While Maldonado (2006) provides us with some data on bombings in Aragon, which amounted to circa 2,000 strikes, the data were not collected systematically enough to be able to perform reliable statistical tests with them. I have coded bombings such that each event may include a whole military operation, which may imply more than one strike.

Kalyvas, 2006; Lyall, 2009). Since I am using a significant number of cases within this region, the results have internal validity.

I have argued that indirect violence in a rearguard territory of a CCW is likely to be determined by a combination of factors: *military*, *political*, and *emotional*. For the sake of operationalization, and given that I lack better indicators, I will use geo-referencing variables (i.e. latitude, longitude, altitude) to measure the «military value» of the localities. These should be suitable indicators insofar as the military importance of a place is connected with its geographical location and terrain (i.e. altitude). I will also include the size of the locality (proxied by the Population variable and with a dummy for urban centers) in order to account for the presence of industrial resources. In addition, we can assume that more populated locations are more likely to be targeted if the armed group intends to morally depress the enemy (Friedrich, 2006). I will incorporate different indicators of the political characteristics of the municipalities, including political competition, trade union affiliation, or percentage of support for the political blocs. According to my theoretical framework, measures of political domination —but not of political competition— should be significant in explaining indirect violence. As far as emotional factors are concerned, I will use number of executions by the rival group (i.e. the Left) in a locality in order to proxy desire for retaliation (i.e. by the Right)[21]. The hypotheses will be tested through the estimation of logit, OLS, and negative binomial (NB) regressions[22]. The results are displayed in two parts: a first set of analyses is run with a model including the military and political variables as the main correlates; a second set of analyses adds the so-called emotional variables to the first model.

Figure 1 depicts the distribution of people killed in Nationalist bombings in Catalonia, during the entire Spanish Civil War. It can be observed that the places with the most fatalities were predominantly urban locations on the coastline[23], locations close to the French border, or locations near the Ebro frontline (in the west), where battalions of soldiers or spare troops were positioned during the Battle of the Ebro (July-November 1938). People living in urban centers such as Barcelona and Tarragona were the most victimized[24].

Nonetheless, it must be noted that there were also several strikes that took place in non-coastal localities which did not have major military or energy industries and thus do not match this geostrategic type of variable. This suggests that bombings might be explained by not only strategic, but also political and emotional factors.

The first general econometric model that will be used to test the hypotheses is the following[25]:

Econometric Model 1. Indirect Violence (Political Factors)

$$Bombing_i = \alpha + \omega SupportLeft_i + \beta X_i + \mu_i$$

21 Again, since the factors explaining executions by the Left are different to those explaining bombings by the Right, there should be no endogeneity issues.

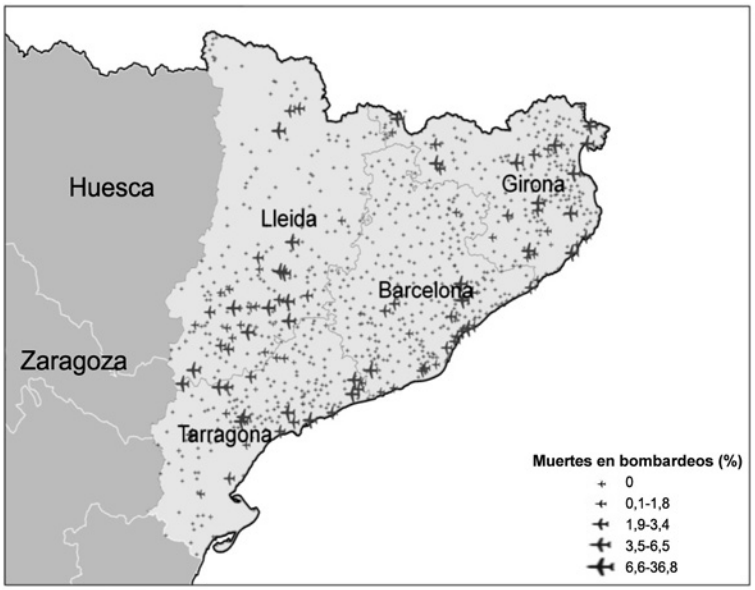
22 NB is an appropriate model for event count type of data (i.e. number of bombardments); logit allows us to estimate the probability of a locality being targeted; OLS allow for the estimation of the number of deaths in bombings.

23 Sea positions were attacked mainly for strategic reasons (e.g. in order to impede communications, sea transportation, and the like) (Solé i Sabaté and Villarroya 1986; 2003b). They were also easily targeted from ships or the Balearic Islands; for example, in mid-May 1938, the Italian garrisons in Mallorca bombed Barcelona, causing 980 fatalities (Payne, 2010: 481).

24 Barcelona was hit by 212 strikes; Tarragona by 89. The greater degree of population density in these municipalities aggravated the lethality of the aerial attacks.

25 I will use different versions of the dependent variable (e.g. % deaths in bombings; number of bombings during the entire civil war; bombings disaggregated by years), to run different versions of the econometric model 1. I will use OLS, logit or NB depending on the nature of the dependent variable.

FIGURE 1. *Deaths in Bombings, Catalonia (1936-1939)*



First, I run a logit model with the dependent variable *Bombdum*, a dummy with value 1 if the locality suffered a strike *that resulted in at least one civilian death* and 0 otherwise. By taking out bombings that involved no civilian deaths, I eliminate those attacks that were aimed purely at infrastructures, roads and harbors, thereby «cleaning» the dependent variable. *Support Left* measures % support for the left-wing bloc in the 1936 elections; this variable is expected to have a positive effect on bombings that were perpetrated by Nationalist forces. X_i includes a number of independent and control variables: *Longitude* and *Latitude* are included as proxies of the military and geostrategic value of a locality, although we do not have theoretical priors on the direction of their effect. Regarding Latitude, I would expect bombings to increase with proximity to the French border due to the strategic importance of cross-border locations; however, as the Battle of the Ebro affected mainly southern territories, it is not clear that bombings should increase with Latitude. Something similar happens with Longitude because, on the one hand, greater longitude in Catalonia implies greater proximity to the sea (and, as we have seen, greater proximity to the sea implies both greater interest and further opportunities for targeting). However, lesser longitude also implies greater proximity to the war frontline, and this should also enhance bombardments driven by military factors. In relation to Altitude, I expect higher (and therefore more mountainous) locations to be less relevant from a militaristic perspective, and therefore less prone to being targeted; more mountainous locations are more isolated, and less likely to be crucial communication nodes or industrial centers[26]. Population allows us to control for

[26] In the regressions, the inclusion of the variable Altitude makes us lose a significant number of cases (18% of them). Yet, if we run this same regression without this variable (i.e. with a total of 1,062 cases), the results do not change.

size or degree of urbanization of a locality, which should have a positive effect on bombings. I also include a dummy for urban centers (Urban), which are localities that had more than 5,000 inhabitants in 1936. CNT Affiliation, UGT Affiliation and Catholic Center are included as additional proxies for the presence of strong supporters of either the Left or the Right in the locality. In this respect, I expect CNT and UGT affiliation to have a positive effect, and Catholic Center a negative effect on bombings.

I test for the alternative hypothesis that political competition —and not political domination by the enemy party– explains the likelihood of a locality being bombed. This will allow us to reject the hypothesis that the factors accounting for indirect violence are the same as those accounting for direct violence (Balcells, 2010a). For this purpose, I include *Competition* in a second regression model (M2). *Comp Abs* (Competition index measured with absolute values) is included in a third model (M3). Furthermore, I run a fourth model including % Support Left measured with data from the 1933 elections (M4), which should provide further robustness to the results.

In a second econometric model, I take into account not only strategic or political factors, but also factors endogenous to war, which should allow us to capture the so-called emotional factors. Specifically, in this model, executions by the Left in a locality are included in the vector of independent variables; I expect these to generate reprisals by the Nationalist army and therefore have a positive impact on bombings[27].

Econometric Model 2. Indirect violence (Political and Emotional Factors)

$$\text{Bombing}_i = \alpha + \omega SupportLeft_i + \delta Executed\ Left_i + \beta X_i + \mu_i$$

[27] It is important to note that Executed Left is not correlated with Support Left (Balcells, 2010a; 2010b).

I will test this model with different dependent variables: total number of bombings, and bombings in particular years of the Civil War (i.e. 1937, 1938 and 1939). This will allow us to determine whether the weight of emotional factors changes as the war progresses.

Military and Political Variables

I first explore the determinants of a locality being targeted at any time during the conflict with bombings that caused at least one civilian death. Thus, I estimate models 1 to 4 with the dependent variable *Bombdum*. The results are depicted in Table 1.

The results in M1 of Table I show that —controlling for all other variables in the model— % support for the Left in the 1936 elections has a significant positive effect on the likelihood of a locality suffering from a lethal bombardment. UGT Affiliation takes a positive and significant sign, thus indicating that the Right was more likely to indirectly attack places with a greater proportion of militants of this trade union. CNT Affiliation has a negative sign, contrary to our expectations (the size of the coefficient is, however, substantively very small, no different from zero). As expected, Altitude has a negative effect on the likelihood of bombings. Catholic Center is not statistically significant, thus not supporting the hypothesis that enclaves of the Right such as religious centers were less targeted than other localities. Longitude takes a negative sign, indicating that western locations were more likely to be targeted; this is consistent with the fact that localities closer to the Ebro frontline were more relevant strategically; Latitude, in contrast, has no significant effect on bombings. Population has a positive and very significant and strong effect on lethal bombings, also supporting the idea that more densely populated locations were more likely to be targeted by bombings. The dummy for Urban locations is not statistically significant.

Figure 2 depicts the predicted likelihood of bombing by levels of support for the Left (all

TABLE 1. *Logit on Lethal Bombing (Bombdum)*

	M1	M2	M3	M4
Population (*1000)	0.694***	0.716***	0.719***	0.726***
	(0.25)	(0.25)	(0.25)	(0.25)
CNT Affiliation	–0.002***	–0.002***	–0.002***	–0.002***
	(0.00)	(0.00)	(0.00)	(0.00)
UGT Affiliation	0.178**	0.186**	0.186**	0.186**
	(0.08)	(0.08)	(0.08)	(0.08)
Urban	–1.125	-1.161	–1.166	–1.195
	(1.20)	(1.22)	(1.22)	(1.22)
Catholic Center	1.655	1.322	1.339	1.423
	(1.61)	(1.60)	(1.61)	(1.58)
Longitude (*1000)	–0.005**	–0.006***	–0.006***	–0.006***
	(0.00)	(0.00)	(0.00)	(0.00)
Latitude (*1000)	0.005	0.007*	0.007*	0.007*
	(0.00)	(0.00)	(0.00)	(0.00)
Altitude (*1000)	–1.227**	–1.461***	–1.468***	–1.389**
	(0.54)	(0.55)	(0.55)	(0.55)
Support Left 1936	0.015**			
	(0.01)			
Competition		0.889		
		(0.73)		
CompAbs			0.497	
			(0.52)	
Support Left 1933				0.005
				(0.01)
Constant	–24.500	–31.748**	–31.144**	–30.554*
	(15.85)	(15.84)	(15.86)	(15.72)
Observations	870	870	870	866
Chi²	57.519	44.212	43.477	43.196

Robust standard errors in brackets
Sig. Level: *.1 **.05 *** .001

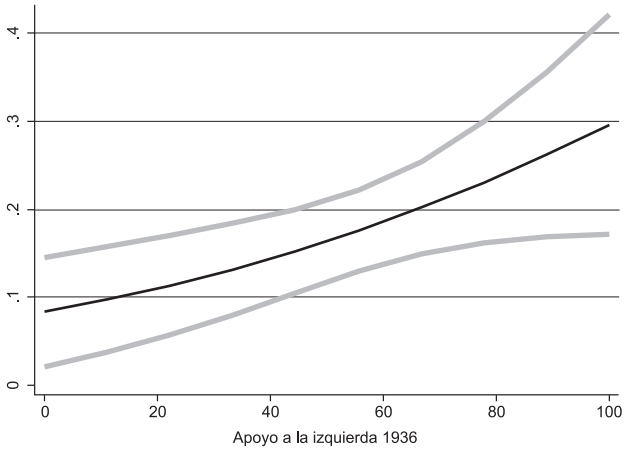
other variables in the regression are set at their mean level). We can observe that the marginal impact of this variable is substantially non-negligible. Specifically, as we can see in Table A2 of the Appendix, a unit increase in the standard deviation in this variable increases the probability of lethal bombing by 29.3%.

In Table 1, none of the alternative independent variables (in models M2, M3 and M4) appears as significant in explaining bombings. Importantly, the non-significance of Competition and CompAbs allows us to rule out the hypothesis that indirect violence is explained by the same factors that account for direct violence (Balcells, 2010a, 2011). The results of M4 indicate that 1933 political alignments do not explain indirect wartime violence; although this variable takes a positive sign, as expected, it is not statistically significant.

Table 2 depicts the results of a set of OLS regressions with total number of people killed in bombings (per thousand inhabitants) as the dependent variable[28].

[28] Given that the dependent variable is normalized here, I do not include Population in the vector of independent variables.

FIGURE 2. *Predicted Likelihood of Lethal Bombings, by % Support Left 1936*



[Key: grey lines depict 95% confidence interval]

Consistent with the results in Table 1, the coefficient for Support Left is positive and statistically significant. The remaining variables take similar signs and statistical significance, as compared to the previous table. One difference is that Urban is now statistically significant, indicating that civilians in urban centers were disproportionally killed by bombings, as expected. Also, Competition in this model is statistically significant at 90%, taking a positive sign[29].

Table 3 depicts the results of an NB specification regressing number of bombings during the entire Civil War *(Total Bombings)* on the same set of variables. The results are highly consistent with those in Table 1, and they support the hypothesis that political domination (and not competition) by the enemy group accounts for indirect targeting of localities. Indeed, Support Left is highly significant in M1, while Competition and CompAbs are not statistically significant. The remaining coefficients take similar values to those in Tables 1 and 2.

All in all, the results in this sub-section indicate that bombings of localities during a CCW are explained by both military and political factors, as hypothesized. On the one hand, the results of the different regression models indicate that geography of a location (e.g. proximity to the sea, proximity to the French border or to the frontline, altitude), which is associated with military strategic and tactical factors, is relevant in explaining indirect violence. Size of locality, which is connected with urbanization and industrialization, and —during wartime- with weapon manufacturing and storage, also has a positive impact on bombings. With regard to political factors, we observe not only a monotonic positive relationship between support for the Left in the 1936 elections and bombings, but also that those places with higher levels of UGT affiliation are more likely to suffer lethal bombardments. Finally, Competition is generally not significant in explaining indirect violence, as predicted.

[29] This goes against our expectations, but it does not seem to be a very robust result, as it disappears in all the other analyses.

TABLA 2. *OLS on ‰ Killed in Bombings*

	M1	M2	M3	M4
CNT Affiliation	–0.000*	–0.000	–0.000	–0.000
	(0.00)	(0.00)	(0.00)	(0.00)
UGT Afiliation	0.185*	0.189*	0.189*	0.191*
	(0.10)	(0.10)	(0.10)	(0.10)
Urban	2.670**	2.738**	2.742**	2.765**
	(1.31)	(1.31)	(1.31)	(1.31)
Catholic Center	–0.315	–0.410	–0.403	–0.187
	(1.07)	(1.07)	(1.07)	(1.06)
Longitude (*1000)	–0.001	–0.001	–0.001	–0.001
	(0.00)	(0.00)	(0.00)	(0.00)
Latitude (*1000)	0.002	0.002	0.002	0.002
	(0.00)	(0.00)	(0.00)	(0.00)
Altitude (*1000)	–0.454**	–0.530***	–0.544***	–0.537***
	(0.20)	(0.20)	(0.20)	(0.20)
Support Left 1936	0.006***			
	(0.00)			
Competition		0.354*		
		(0.19)		
CompAbs			0.134	
			(0.18)	
Support Left1933				0.002
				(0.00)
Constant	–7.097	–9.720	–9.441	–9.848
	(7.73)	(7.66)	(7.64)	(7.69)
Observations	870	870	870	866

Robust standard errors in brackets.
Sig Level: *.1 **.05 *** .001

Emotional Variables

Bombing civilians could have been an instrument for Francoist military authorities to punish localities where the anarchists and other militiamen had dealt severely with the rightists, namely a form of collective retaliation. As mentioned previously, armed groups may be interested in satisfying domestic audiences (i.e. in their own rearguards), and they may be willing to be compliant with their emotions, including those related to revenge[30]. Qualitative evidence regarding this hypothesis is rather scarce, mainly because of the absence of official reports making explicit the motives underlying the decision to bomb. Nonetheless, I have found some illustrative evidence in secondary sources; for example, in the county of *La Cerdanya*, the localities of *Puigcerdà* and *Alp*, where the anarchist militias had been brutal against rightist people were targets of bombardments that turned out to be very deadly. Indirect violence barely affected the nearby town of *Bellver*, where the militiamen had not killed anyone. According to a local historian, «The bombs were falling into the river. Maybe they [the Nationalists] did not have much interest in killing people»[31].

[30] Abellà argues that in the rearguard territories of Spain, astonishment was the predominant feeling among the population, but that this feeling gradually became more violent (1973: 58).

[31] Anonymous Interviewee. Personal communication, February 2007.

TABLE 3. *NB on Total Bombings*

	M1	M2	M3	M4
Population (*1000)	0.088***	0.092***	0.092***	0.093***
	(0.03)	(0.03)	(0.03)	(0.03)
CNT Afiliation	–0.001***	–0.001***	–0.001***	–0.001***
	(0.00)	(0.00)	(0.00)	(0.00)
UGT Afiliation	0.158	0.199	0.200	0.197
	(0.12)	(0.14)	(0.15)	(0.14)
Urban	2.740***	3.048***	3.026***	3.083***
	(0.51)	(0.57)	(0.57)	(0.60)
Catholic Center	–0.331	–0.760	–0.731	–0.659
	(0.75)	(0.85)	(0.84)	(0.87)
Longitude (*1000)	0.000	–0.001	–0.001	–0.001
	(0.00)	(0.00)	(0.00)	(0.00)
Latitude (*1000)	–0.001	0.003	0.002	0.003
	(0.00)	(0.00)	(0.00)	(0.00)
Altitude (*1000)	–2.244***	–2.940***	–2.913***	–2.889***
	(0.57)	(0.62)	(0.62)	(0.63)
Support Left 1936	0.028***			
	(0.01)			
Competition		–0.188		
		(0.85)		
CompAbs			–0.374	
			(0.57)	
Support Left 1933				0.004
				(0.01)
Constant	1.426	–11.956	–10.674	–13.263
	(15.84)	(16.98)	(16.93)	(17.45)
Lnalpha	1.443***	1.544***	1.538***	1.560***
	(0.18)	(0.17)	(0.17)	(0.18)
Observations	870	870	870	866
Chi2	182.506	142.809	141.726	144.286

Robust standard errors in brackets
Sig Level: *.1 **.05 *** .001

In Table 4, I present the results of different NB models, one for each of the different dependent variables: number of bombings in each year (1937; 1938; 1939), and total number of bombings affecting a locality during the entire Civil War. In addition to the independent and control variables in the models above, Executed Left is included in the vector of explanatory variables. We expect this variable, a proxy for retaliation, to have a positive effect.

In Table 4, we can observe that Executed Left has a positive effect on bombings taking place in 1939, as well as on total number of bombings in a locality[32]. It does not have an effect on bombings taking place in 1937 and 1938. Retaliation is thus shown to have an impact on bombings only in the later stages of the Civil War, which makes sense. Also, the effect of retaliation does not rule out the

[32] Executed Left is not disaggregated by years (unfortunately, I have not been able to find these type of data); this means that the same figures are counted for each year. In this sense, it is interesting to see that the relative effect of direct killings is lagged, as it increases with the years.

TABLE 4. *NB on Total Bombings, with Executed Left*

	1937	1938	1939	Total Bombs
Population (*1000)	0.073**	0.004	0.031	–0.007
	(0.04)	(0.07)	(0.08)	(0.06)
CNT Affiliation	–0.000***	–0.000*	–0.001**	–0.000**
	(0.00)	(0.00)	(0.00)	(0.00)
UGT Affiliation	–0.033	0.136	0.110***	0.129
	(0.06)	(0.12)	(0.03)	(0.08)
Urban	2.683***	2.749***	1.988***	2.666***
	(0.45)	(0.63)	(0.46)	(0.49)
Catholic Center	0.681	–2.016	–2.509	–2.322*
	(1.20)	(1.74)	(1.55)	(1.24)
Latitude (*1000)	–0.006	–0.004	0.014***	0.001
	(0.01)	(0.00)	(0.00)	(0.00)
Longitude (*1000)	0.010	0.002	–0.006	–0.001
	(0.01)	(0.00)	(0.01)	(0.00)
Altitude (*1000)	–17.115***	–3.326***	0.171	–2.366***
	(4.59)	(0.84)	(0.74)	(0.56)
Support Left 1936	0.037***	0.030***	0.023***	0.030***
	(0.01)	(0.01)	(0.01)	(0.01)
Killed Left	–0.000	0.018	0.029*	0.022*
	(0.01)	(0.01)	(0.02)	(0.01)
Constant	–47.485	–11.079	19.336	0.157
	(40.89)	(19.37)	(25.73)	(16.42)
Lnalpha	0.830	1.793	1.191	1.438
	(0.39)	(0.24)	(0.38)	(0.17)
Observations	870	870	870	870
Chi^2	291.133	151.455	650.408	203.054

Robust standard errors in brackets
Sig. Level: *.1 **.05 *** .001

effect of Support Left, which remains substantively and statistically significant across all the models. Except for Population, which loses statistical significance, the coefficients for the remaining variables take similar values and signs to those in the regressions above.

A caveat: one could argue that the relationship observed in the two last models of Table 4 was in fact the reverse; that direct killings were the consequence and not the cause of indirect violence. In fact, in several historical accounts (Preston, 1986; Solé i Sabaté and Villarroya, 1989, 2003) it is argued that aerial bombardments affecting their rearguards sometimes made the groups perpetrate direct violence against civilians. These cases of retaliation very often involved the execution of prisoners (in the so-called *sacas*) (Payne, 2010: 476). This is what happened, for example, on the ship *Aragon*, where prisoners were being held by the Republican army: «As a result of a bombardment of the Nationalist air force over Mahón, all the prisoners in the ship, even the doctors, were executed in reprisal» (Moreno de Alborán and Moreno de Alborán, 1998: 239)[33]. Based on

[33] On some occasions, it would seem that these retaliations were not even well founded; for example, a report of the Toledo Directorate General for Security

these historians' insights, Herreros and Criado (2009) have analyzed the effect of bombings on leftist violence in Catalonia, and they have found a positive impact of bombings on executions. However, it must be noted that the number of massacres carried out as a reprisal for aerial and naval bombardments in Catalonia, as reported by historians, is quite limited, and concentrated on very specific dates: 30 October 1936, after the incursion of a war boat in the harbor of *Roses*, which led to a wave of killings across the territory; 16 November 1936 in *Palamós*; 13 February 1937 in Barcelona (Solé i Sabaté and Villarroya, 2003)[34]. Moreover, as I have explained, the large majority of bombardments in Catalonia were perpetrated after 1936 —that is, after the largest share of leftist violence had taken place; this timing means that direct violence in this region is not a possible consequence of bombings[35].

To wrap up, the results with data on bombings in Catalonia generally support the idea that political factors, in addition to military factors, play a role in explaining indirect violence, especially in the early stages of a civil war. Emotional factors —which I have operationalized with previous direct violence by the rival group in a locality— also play a role, and their substantial impact increases as the war develops. This is consistent with a framework combining exogenous and endogenous variables in explaining wartime victimization of civilians, which also accounts for direct violence (Balcells, 2010b).

The results here have connections with findings in previous research. For example, Kocher *et al*. (2011) emphasize the relevance of political alignments at the local level in explaining bombings. They provide evidence from Vietnam, an irregular civil war where what they describe as indiscriminate violence (empirically referring to bombings) tended to occur in political strongholds of one side or the other. These authors argue that in conventional conflicts indirect violence will take place only in the most contested zones of the battlefield; the findings here challenge this argument inasmuch as they show that indirect violence in conventional civil wars can also target rearguard civilian locations on the basis of political motives.

One implication of the theoretical framework set out above is that indirect violence will target places hosting IDPs —i.e. people who have left their control area and who thereby show strong loyalties to the rival group. Although not linked to indirect violence, research on massacres in Colombia (Steele, 2010) has provided some evidence along these lines. For the particular case of Spain, some historians have pointed out that places with larger numbers of internally displaced people were more intensively victimized by the Right (e.g. Guernica, as argued by Vidal, 1997). A written testimony (in a magazine of the period: *Sembrador*) of a woman who left the city of Malaga, recounts how the Francoist army persecuted people as they left the city by bombing them: «In the midst of a shrapnel rain, we took flight. Everyone in the city was looking for salvation because nobody in Malaga wanted

(Police) states that «around 80 people were taken out from the provincial prison during the night of 23 August 1936, and were killed as a reprisal for the bombardment of the Red air force, which accidentally targeted the Red barricades» (Informe 4741, *Causa General*, Pieza 4, Checas, 1049/1).

34 Solé i Sabaté and Villarroya (2003: 64-73) detail all the cases of reprisal after bombardments in Spain.

35 In fact, if I run the same regression with Bombings (either total bombings or disaggregated by years) as an independent variable, and executions by the Left as the dependent variable, I obtain a significant «effect» of bombings on number of executions. (The estimates of the remaining independent variables do not change substantively). However, the fact that the coefficient is significant does not mean that it captures a causal relationship. I would argue that the test performed by Herreros and Criado (2009) would be more plausible regarding regions such as Mallorca, or Huesca and Zaragoza in Aragon, where the timing of the bombings and executions is more consistent with this type of account, and where historical accounts are more supportive of the existence of these retaliatory executions (see Solé i Sabaté and Villarroya, 2003 or Ledesma, 2009 for further details on these types of executions).

Fascism. The roads and fields were black, full of people... At least 150,000 were fleeing toward Almeria... we were persecuted by a squad of fighter planes that discharged shrapnel on us; we were defenseless». To test the implication that locations with larger number of IDPs are more likely to be targeted with indirect violence, I collected data on the total number of internally displaced persons living in a locality during different stages of the civil war[36]. With these data I tested, using the same empirical models above, the impact of the presence of these IDPs (measured with % of the population of the locality) on the likelihood of a locality being bombed. I ran a logit regression on Bombdum, and a NB model on Bombings (both total and disaggregated by years, following Table 4). I included different specifications of the independent variable: lagged IDPs (% IDPs in the previous year), or IDPs of the same year. However, in none of the cases did this variable prove to be statistically significant, thus allowing us to reject this observable implication[37].

Conclusions

This article has presented a set of hypotheses and empirical analyses on the determinants of indirect violence in the rearguard territories of a conventional civil war. The results —based on the exploitation of a novel fine-grained dataset on Nationalist bombings in Catalonia during the Spanish Civil War— support the hypothesis that political dominance by the enemy group has an impact on levels of indirect violence in a locality. This finding is consistent with previous research on other types of civil war (Kocher *et al*., 2011). Competition, in contrast, does not appear to explain indirect violence, and I argue that this is because, unlike in the case of direct violence (Balcells, 2010a), civilian agency is irrelevant for bombings and similar indirect attacks. By means of indirect violence, armed groups unilaterally attack those localities that are politically dominated by the rival group, because in this way they maximize the elimination of strong enemy supporters, who represent a threat to their interests.

The results in this paper are relevant insofar as they demonstrate that political variables are crucial in accounting for bombings during CCW, and they are consistent with a theoretical framework that explains violence in these civil wars by emphasizing the determination of armed groups to cleanse the rearguard territories of enemies, by all possible means. The findings in this article are also important from a theoretical perspective, as they shed light on the idea that the concept of indiscriminate violence, as defined in Kalyvas (2006), may be too blurred, and that selective violence can take place at the level of a community. As we have seen, qualitative evidence from the Spanish Civil War supports this insight; for example, regarding Nationalist bombings in Madrid (autumn-winter 1936), «the neighborhood least affected by the bombs in Madrid was that of Salamanca, which was the one inhabited by many of the supporters of the rebellion. Franco gave instructions not to bomb it» (Solé i Sabaté and Villarroya, 2003: 56). Finally, taken together, the results in this article also illustrate that, in addition to exogenous factors, bombings are influenced by the dynamics of the war —namely, direct killings perpetrated by the opposing group at local level—. This is consistent with a framework emphasizing the role of not only political rivalry, but also emotions such as revenge in understanding civil war violence (Balcells, 2010b).

[36] Source: Serrallonga (2004).

[37] Due to the non-results and space limitations, I have not included these analyses here, but they are available upon request.

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Appendix

TABLE A1. *Distribution of Bombings in the Sample*

Total Bombings	Frequency	Percentage
0	915	86.16
1	84	7.91
2	22	2.07
3	9	0.85
4	12	1.13
5	2	0.19
7	5	0.47
9	3	0.28
11	1	0.09
12	1	0.09
13	2	0.19
14	1	0.09
15	1	0.09
21	1	0.09
39	1	0.09
89	1	0.09
212	1	0.09
Total	1,062	100

TABLE A2. *Marginal Effects for M1 in la table 1 (Logit on Bombdum)*

	B	Z	P > z	%	%StdX	SDofX
Population	0.69***	2.81	0.005	100.2	3.6e+08	21.74
CNT Affiliation	–0.002***	–2.89	0.004	–0.2	–99.4	3013.51
UGT Affiliation	0.18**	2.19	0.028	19.5	22.2	1.13
Urban	–1.12	–0.94	0.349	–67.5	–16.5	0.16
Catholic Center	1.65	1.03	0.304	423.1	17.1	0.09
Longitude	–0.005**	–2.43	0.015	–0.5	–29.8	66.14
Latitude	0.005	1.43	0.153	0.5	26.6	46.09
Altitude	–1.23**	–2.27	0.023	–70.7	–32.2	0.32
Support Left 1936	0.02**	2.38	0.017	1.5	29.3	16.76