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WORKING DOCUMENT N° 6
MAPPING SOCIAL CONFLICTS IN
NATURAL RESOURCES. A TEXT-MINING
STUDY IN MINING ACTIVITIES

Ramiro Albrieu
Gabriel Palazzo



Canada

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Luis Piera 1992 Piso 3 - Edificio Mercosur, CP 11200, Montevideo, Uruguay
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Applying text-mining techniques, the researchers developed a methodology that measures the number of social conflicts related to the exploitation of non-renewable natural resources. The focus was on conflicts in four mining countries (Australia, Canada, Chile and Peru) from 2003 to 2014, considering more than 20,000 articles from the major newspapers of each country. From the data analyzed the authors detected cross-country and cross-regional differences in changing time patterns for social conflicts in mining activities and different degrees of conflicts.

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1. Introduction

The exploitation of underground assets is a controversial issue. On the one hand, it can increase government revenues and feed the economy with the necessary income for growth –what Albert O. Hirschman [11] called *indirect linkages*. On the other hand, there is a perception both in the literature and in public opinion that the social costs of these activities are not taken into account when governments (or firms) decide to deplete a given nonrenewable natural resource. This is particularly true when it comes to a future generation's welfare effects from current actions, but also to the contemporary local effects of its depletion.

The climate change agenda, and, more specifically, the green accounting literature and its main applications (such as the United Nation's System of Environmental-Economic Accounting, see [27]) are currently addressing the intergenerational equity issue. In particular, the World Bank's ([28], [29]) estimates of adjusting savings tackled the intergenerational problem by correcting standard accounting savings (this period's addition to future generations' assets) with human and physical capital investment, natural resources depletion, and environmental damages caused by carbon dioxide and other emissions. The issue of intragenerational equity, in turn, has been harder to address.

This paper seeks to contribute to this in-progress literature by finding proxy measures for social conflicts at national and local (or regional) levels. To that end, we try to find patterns that can account for social conflicts in millions of words in articles about the mining sector appearing in the major newspapers of four large mining producers: Australia, Canada, Chile, and Peru.

The paper is organized as follows. Section 2 explains the methodology to be applied to measure social conflict. Section 3 shows our main conclusions at country levels. Section 4 addresses regional disparities within countries, while Section 5 checks the types of conflict. Section 6 concludes.

2. Quantifying social conflicts in extractive industries

2.1 Literature review

The methodology that we employ in this paper belongs to the family of the text mining techniques. These techniques reach conclusions, advance computationally-based research and detect statistical patterns by studying the words in texts.

Online newspapers contain vast amounts of qualitative information that can be processed using new software technologies in order to obtain quantitative assessments for hard-to-quantify economic variables. Gupta and Lehal [14] describe these text mining techniques as “the discovery by computer of new, previously unknown information, by automatically extracting information from different written resources”.

The amount of work using this family of techniques in economics has grown over time. Tetlock [26] is one of the pioneering works in the profession to build an index of market pessimism by mining into the contents of the “Abreast of the Market” column in the Wall Street Journal. By the same token, Garcia [12] constructed an index of market sentiment counting the number of positive and negative words of two financial columns (“Financial Markets” and “Topics in Wall Street”) of the New York Times, with daily data from this newspaper. Likewise, Aromi [2] applied a similar methodology evaluating how information flows from newspapers can influence the performance of the financial market in Argentina. To obtain a quantitative index, all these studies used a dictionary approach, counting positive and negative words to generate a numerical index.

Baker, Bloom and Davis [3] use text-mining techniques to derive an index that quantifies the uncertainty of current economic policy and its impact on investment demand in the context of the economic recession of the United States 2007-2009. For this they built an “economic policy uncertainty” (EPU) index which attempts to capture the prevailing uncertainty about taxes, spending, regulation and monetary policy. The EPU index is based on an automated text search in ten American newspapers, from 1985, and explores terms related to political uncertainty.

Turning to the topic of the paper, social conflicts in natural resources, it has a far longer history than our methodology. From the 1980s the conventional view that natural resources endowments are conducive to economic development is being contested by a more pessimistic view where these very endowments are the source of underdevelopment. Sachs and Warner [23] drew attention to the “curse of natural resources”, accounting for the lower growth exhibited by countries with a high share of exports based on natural resources for the period 1970-1989. More recently, Brunnschweiler and Bulte [4] stated that there are at least three dimensions of the curse of natural resources: (i) lower economic growth, (ii) violent civil conflicts, and (iii) authoritarian political regimes.

Several reasons may link the exploitation of natural resources to social unrest and political conflicts. As possible hypotheses, Sachs and Warner [23] and Leite and Weidmann [17] argue that natural resources-rich countries exhibit higher inequality and social polarization as the upper classes take advantage of their political power to lobby for resources, assuming a rent-seeking behavior. Collier and Hoeffler ([6], [7], [8]) stated that as natural resources are homogeneous goods, they do not require complex skills for exploitation, thus making it easier to appropriate their income.

Along a similar line, Nafziger and Auvien [19] and Sinnott et al. [25] argue that the conflict could be generated as the poorest strata would not receive what they consider fair, implying a predator state, weak regulations and elites that leverage to extract rents rather than promote economic growth. Sinnott et al. [25] marked the mining and oil exploitation in social terms, often producing social reprobation for these activities because of its environmental impact and its poor working conditions. In turn, concepts such as "Dutch Disease" or the Prebisch-Singer thesis explain why the exploitation of natural resources can generate social unrest among a certain segment of the population in terms of economic performance (Singer [24] and Prebisch [21]). This could weaken governance and democratic structures, given the high poverty rates that would result in vulnerable populations and then be reflected in conflict (Mehlum, Moene and Torvik [18]; Robinson, Torvik and Verdier [22]).

Subsequent work in analyzing the linkages between natural resources, economic performance and political instability shows some methodological consensus: it is difficult to identify instruments to contrast the different hypotheses separately. Humphreys ([16] and Brunnschweiler and Bulte [4] made an important critique of the literature. They claim that many econometric studies suffer from endogeneity in the explanatory variables, while Haber and Menaldo [15] criticize the traditional methodology claiming that the dependence on natural resources (including oil, gas and mining) exhibits endogeneity for the analysis of their impact on the authoritarian government.

Brunnschweiler and Bulte [4] argue that it is necessary to instrument the variables involved. The authors find that there is endogeneity between these variables and reverse causality situations, where peace reduces the dependence on natural resources and that it is not the dependency on exports that promotes social conflict. Note that these results support the opposite effect of the resources curse thesis; in fact, they found that the abundance could impact positively on economic growth. Mehlum, Moene and Torvik [18], like Brunnschweiler and Bulte [4], Arezki and van der Ploeg [1], Haber and Menaldo [15] and Leite and Wiedmann [17] stated that taking into account the role of institutions, the abundance of natural resources could become a blessing. According to Giordano, Giordano and Wolf [13] and Evans [10] would be due to shortages of resources that can be found links between the exploitation of natural resources and the generation of sociopolitical conflicts.

Few studies examine this relationship with text-mining technology. To our knowledge Calderon Gutierrez et al. [5] is the closest to ours (Dube and Vargas [9] is another example). They conducted a study of social conflict in Latin America collecting data from major newspapers from seventeen countries from October 2009 to September 2010.

The study addresses a general analysis of social conflict, identifying three different types: i) social reproduction (which is the largest type in the period and includes conflicts related to labor, wages, land and incomes); ii) institutional conflict (public goods provision, administrative management and authority questioning); and iii) cultural conflict (ideological-political issues, public safety, environment, etc.).

2.2 Our empirical strategy

We have created a methodology that measures the quantity of sociopolitical conflicts related to the exploitation of mineral resources (for an application to other natural resources, see Palazzo [20]).

The program routine that we applied belongs to the bag-of-words family models of text mining. It consists of counting the number of hostile words in each article which refers to the mining industry in a particular location and time. The number of conflict words gives us a proxy of the level of conflict in a particular point in time and place. In addition, with this information we created a set of indexes (e.g., the ratio of hostile words and total words per article) to capture the intensity of conflicts.

The literature on social conflicts has been dealing with civil wars where the number of dead people is the measure. Our index differs from those kinds of indexes, offering a soft measure of conflict that involves strikes, lockouts, protest marches and political conflicts. Additionally, the conflicts are unequivocally related to the mining industry because of the methodology itself.

To obtain the data we accessed Global Factiva-Dow Jones, a website which collects and stores a large number of newspapers from around the world and classifies the pieces of news by industry and sector. We have chosen the Mining/Quarrying and Primary Metals Industries, which guarantees that every piece of news concerns the sector of our interest.

We downloaded one newspaper per country. We selected each country's largest paper in circulation, taking into account how many years of news items each newspaper has. We downloaded El Mercurio for Chile, Comercio for Peru, Herald Sun for Australia and The Globe and Mail for Canada. We have information from November 2002 for Mercurio, October 2002 for Comercio, July 1997 for Herald Sun and December 1986 for The Globe and Mail. Since most newspapers have articles referring to other countries, we deleted those that contain the name of other countries as long as the name of the country of interest was not mentioned in the same news item.

The way in which we identified conflicts was crucial. Like Calderon Gutierrez et al., [5] we adopt a classic definition of social conflict as *"a process of contentious interaction between social actors and institutions, mobilized with varying degrees of organization and act collectively according to expectations of improvement, defense of the status quo or proposing a social counterproposal. A social conflict arises when a social group, actor or social movement (workers, entrepreneurs, farmers, indigenous people, teachers, civic movement,*

students, unions, academics, etc.) expresses a collective malaise situation so demands hostile through and violent measures pressure (strikes, marches, riots, demonstrations, making facilities, riots, etc.) against any public or private body” (Calderon Gutierrez et al. [5] p. 283).

Taking this definition, we chose a dictionary approach to detect these patterns in the news. We used the hostile words category of the Harvard IV-4 dictionary which includes 687 entries in English. We then translated them into Spanish and expanded the database by using synonyms for 1,325 words (see the appendix for more details).

Some comments are necessary. First, using the R program we remove the common termination of words by language, avoiding any possible complication derived from the conjugation of verbs, plurals and genders. Second, all words are rewritten in the lowercase; we excluded punctuation, accents and deleted common words in each language (like connectors) to avoid counting extra words that add no special meaning and may be used in different amounts in each idiom.

Finally, the statistical program R allowed us to systematize the routine to generate both indexes at a national level. However, we went further and divided the indexes of each country by state/region. To that end we again used text mining techniques. We categorized each article in terms of regions by checking if it contained the name of the state, the name of the principal cities and/or the name of the mining sites in that state.

We created three alternative indexes that serve as proxy variables for the number of social conflicts related to natural resources. These indexes could be used for different purposes.

- **Conflictive news.** Let $CN_{i,t}$ be some news with conflict words about the country or region i at time t , then the conflict news index for each country/region is $CN_i = \sum_t CN_{i,t}$ and the total conflict news index for each period $CN_t = \sum_i CN_{i,t}$. This index can have numerous biases because, for example, it does not control whether conflict increases are due solely to an increasing trend in the number of published reports.
- **Standardised Conflictive news.** As in Baker, Bloom and Davis [3], let $TN_{i,t}$ be some news items about mining in country/region i published in period t , the standardized conflict news index is $SCN_{i,t} = \frac{CN_{i,t}}{TN_{i,t}}$.
- **Conflict intensity.** Based on Garcia [12] and Aromi [2], we propose measuring the intensity of a conflict in a specific point in time and space as the ratio of the number of hostile words to the total number of words inside the subset of conflict news. Let $CW_{i,t}$ be the number of conflict words found in the conflict news and $TW_{i,t}$ the total number of words of these articles, we measure conflict intensity in country/region i during the period t as $CI_{i,t} = \frac{CW_{i,t}}{TW_{i,t}}$.

3. Social conflicts in mining (i): cross-country comparisons

Table 1 below shows our basis data. We collected 20,119 news about mining in the four newspapers between Q1 2003 and Q2 2016. Some 78% of these news were conflictive, showing that there is a pessimistic public sentiment about the mining activities. It is somewhat an expected outcome given that our unit of analysis is newspapers' news.

When we split the data in countries, some differences arise. First, $SCN_{i,t}$ is higher among developed countries: around 92% for both Australia and Canada. In Chile and Peru, in turn, the share of conflictive news is some 63%-66%. What about conflict intensity? There again we find higher values in developed countries, but in Canada the intensity seems somewhat higher than in Australia.

Table 1#. Cross-country patterns in social conflictiveness in mining, Q1 2003- Q2 2016

Country	$TN_{i,t}$	$CN_{i,t}$	$SCN_{i,t}$	$CI_{i,t}$
Australia	2,709	2,502	92.36%	3.70%
Canada	6,871	6,349	92.40%	4.53%
Chile	8,095	5,375	66.4%	2.76%
Peru	2,444	1,543	63.13%	2.89%
Total	20,119	15,769	78.37%	3.81%

Now we move to time patterns (see Table 2). Regarding the conflictive news index, $CN_{i,t}$, we detected three different sub-periods. One where social conflict shows an increasing trend (roughly from 2003 to 2006); other where it consistently drops (2007-2009) and the final one where it remains stable (although with two peaks: 2010 and 2014). The standardised index $SCN_{i,t}$, in turn, exhibits a different picture. During the period 2003-2007 it shows a stable trend at relatively low levels, reflecting that conflictive news grew *pari passu* total news; then, it jumps and stabilised at higher levels through the period 2008-2013; finally, it swings over the last years, peaking in 2015.

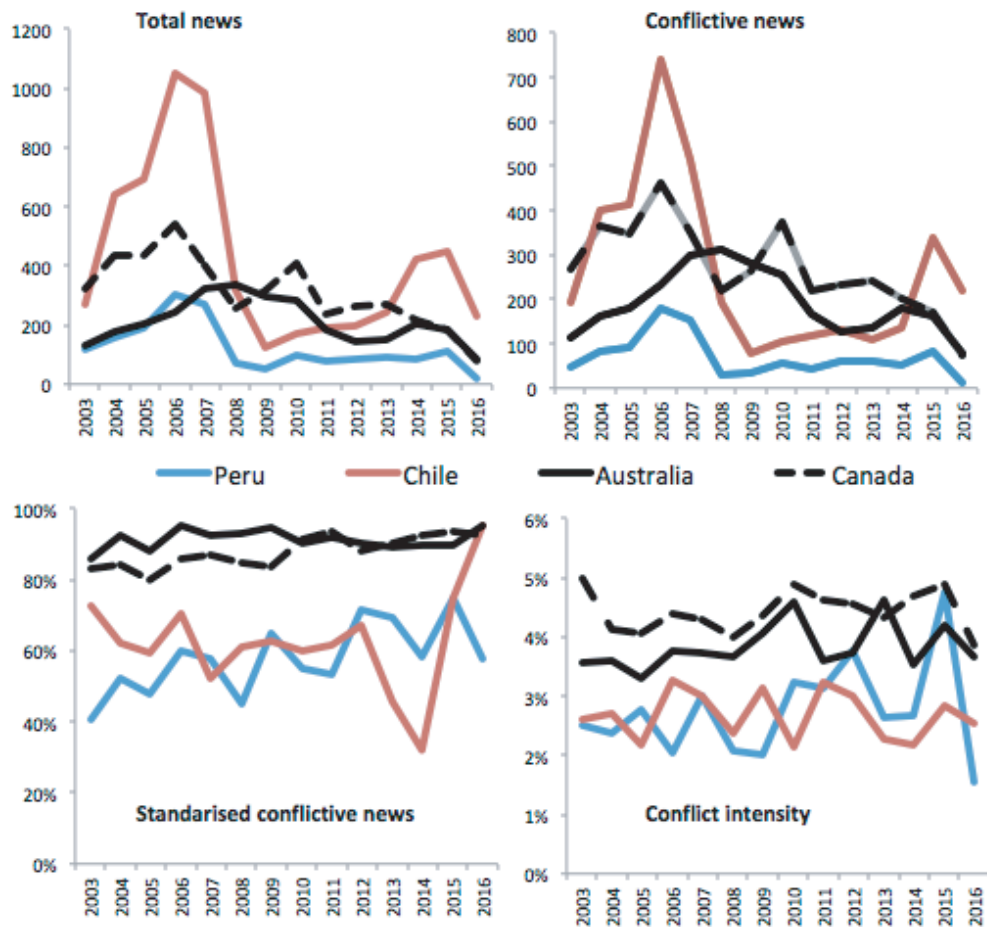
What about conflict intensity? our index $CI_{i,t}$ detects a continuous increase in the intensity of social conflicts around mining from 2003 to 2010; then it diminishes, but slowly.

Table 2#. Time patterns in social conflictiveness in mining, all countries

Period t	$TN_{i,t}$	$CN_{i,t}$	$SCN_{i,t}$	$CI_{i,t}$
2003	822	695	84.55%	4.02%
2004	1394	1049	75.25%	3.42%
2005	1497	1091	72.88%	3.20%
2006	2128	1637	76.93%	3.62%
2007	1952	1270	65.06%	3.63%
2008	953	664	69.67%	3.47%
2009	774	529	68.35%	4.02%
2010	938	755	80.49%	4.42%
2011	670	495	73.88%	4.03%
2012	669	541	80.87%	4.03%
2013	732	535	73.09%	3.98%
2014	908	502	55.29%	3.75%
2015	908	697	76.76%	3.91%
2016	406	373	91.87%	2.99%

Finally, Figure 1 exhibits the country-specific evolution of social conflict through time. Regarding both the total news index $TN_{i,t}$ and the conflictive news index $CN_{i,t}$, it is clear that they peaked somewhere during 2004-2008. The standardised index, in turn, reveals that the cross-country differences we mentioned before are present all the period under analysis. The index for Chile and Peru are more volatile than those of Australia and Canada, and Chile's social conflict grew heavily during the last two years. Regarding conflict intensity, we highlight two things. First, that the Peruvian index is more volatile than the others; it means that Peru is subject to "explosions" of intensive conflicts that are not present in the other countries. The second is the ability of Chile to maintain its low intensity during the whole period.

Figure 1#. Time-variant, country-specific social conflicts in mining

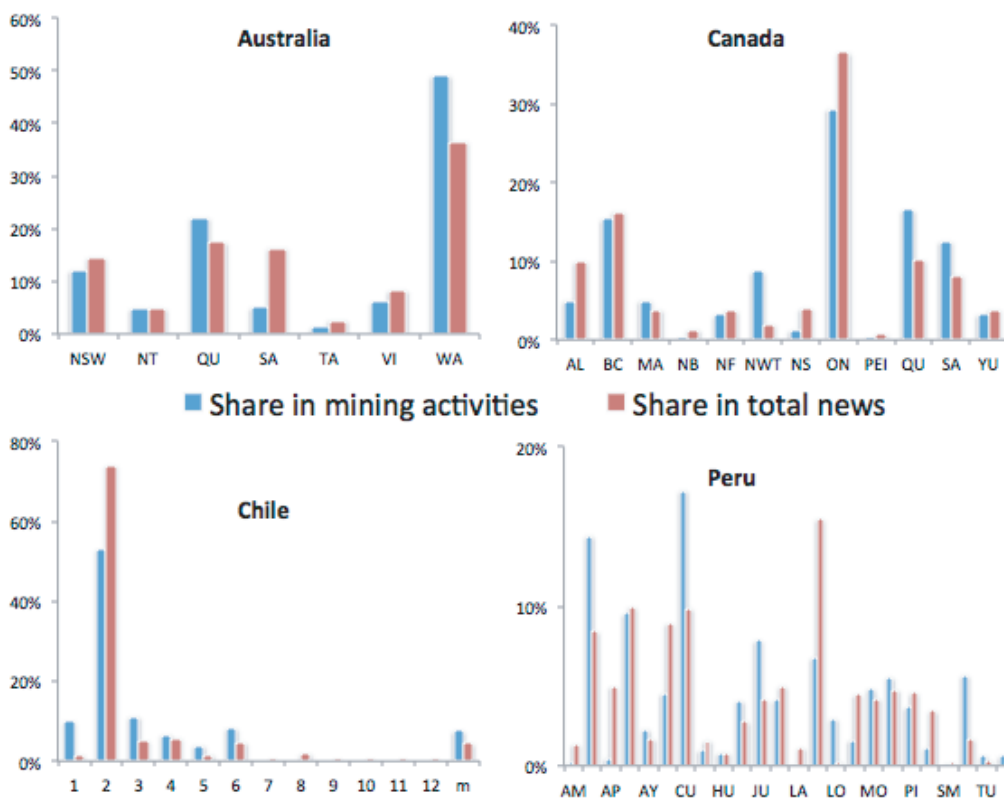


Source: own elaboration

4. Social conflicts in mining (ii): cross-regional comparisons

Let us now focus on the regional level. We applied text mining to categorize each article by state to see whether it contained the name of the state, the principal cities or the name of the mining sites in that state.

Figure 2#. Regional mapping of mining activities and mining news
Q1 2003- Q2 2016



As was expected, the states with a higher level of total news are those where the mining sector is present. Figure 2 shows the relationship between shares in the national mining GDP (c. 2013-4) and the share in total news of each state in each country.

We found a clear correlation between both indexes. This correlation is particularly high in Canada (Ontario), Australia (Western Australia) and Chile (Region II), where the main state producer has the highest level of news about mining. The level of news drops as the mining sector becomes less important.

In Peru the correlation is weaker but remains high. The peak of total news is in Lima, the country's capital, which ranks 5th in mining and exhibits 7% of the share. Although it is not the main producer (Ancash and Cusco are more important), it is not uncommon to find mining news in the capital city, where the congress and national politicians are located. Similar results are found in Argentina (Palazzo [20]).

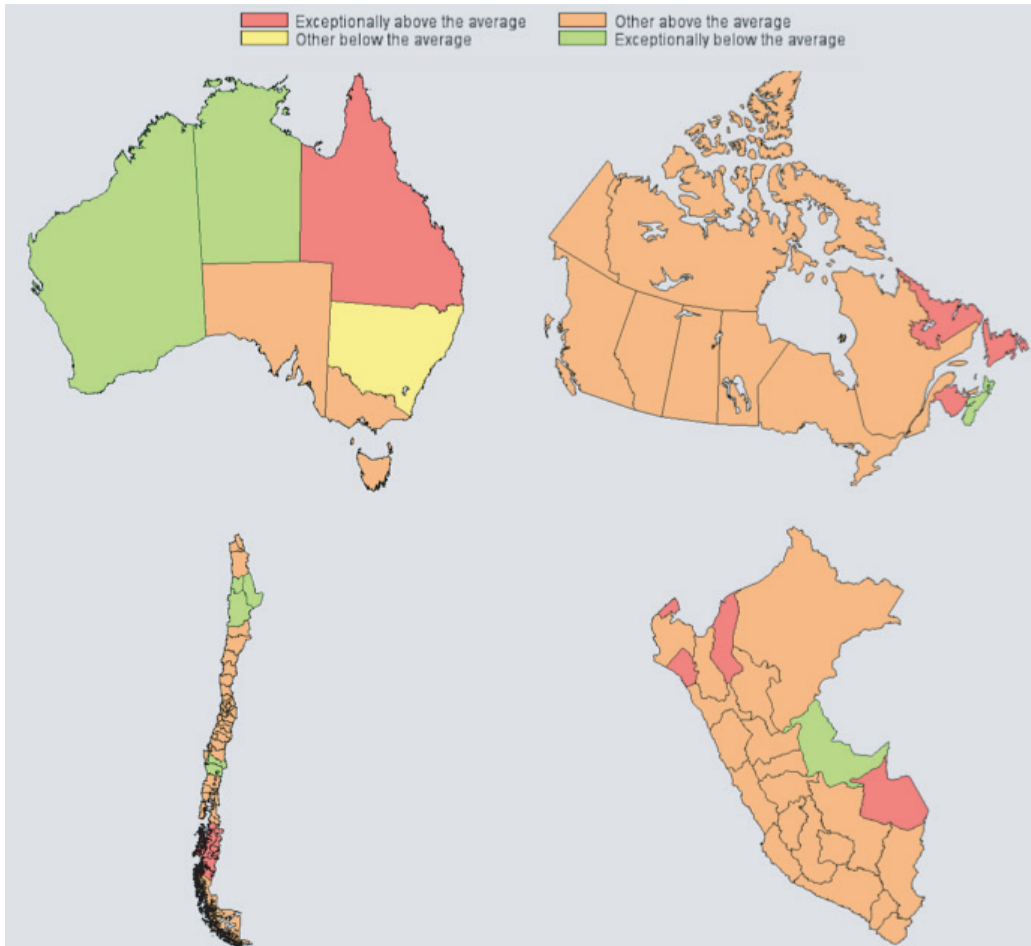
Now let us examine the regional mapping of social conflicts in mining (that is, obtain regional values for our standardized conflict index and our conflict intensity index). To analyze regional differences within each country we will consider four distinct sub-groups; two of them are "exceptional" and refer to cases where the index reaches higher (lower) values than the average value plus (minus) one standard deviation. The members of the other two subgroups exhibit values above or below the average but within normal standards.

We start with the standardized conflict index. In Australia, Queensland is a region that can be characterized for its particularly high level of conflict. For one thing, the proportion of negative news surpasses 95% (92.3% is the average for the country as a whole). Western Australia and the Northern Territory, in turn, are characterized for their relatively low levels of conflict (about 90% of the news registers conflicts). The total variability, however, is relatively low (the coefficient of variation is 0.023).

In Canada, the conflict index is also close to 92%. New Brunswick and Newfoundland, two eastern regions, are conspicuous for the wrong reasons; their share of negative news exceeds 95%. Across the ranking, Nova Scotia stands out for having the lowest level of conflict (84.5% of the news involves conflicts). It is only because of this case that the total variability index for Canada is higher than Australia's.

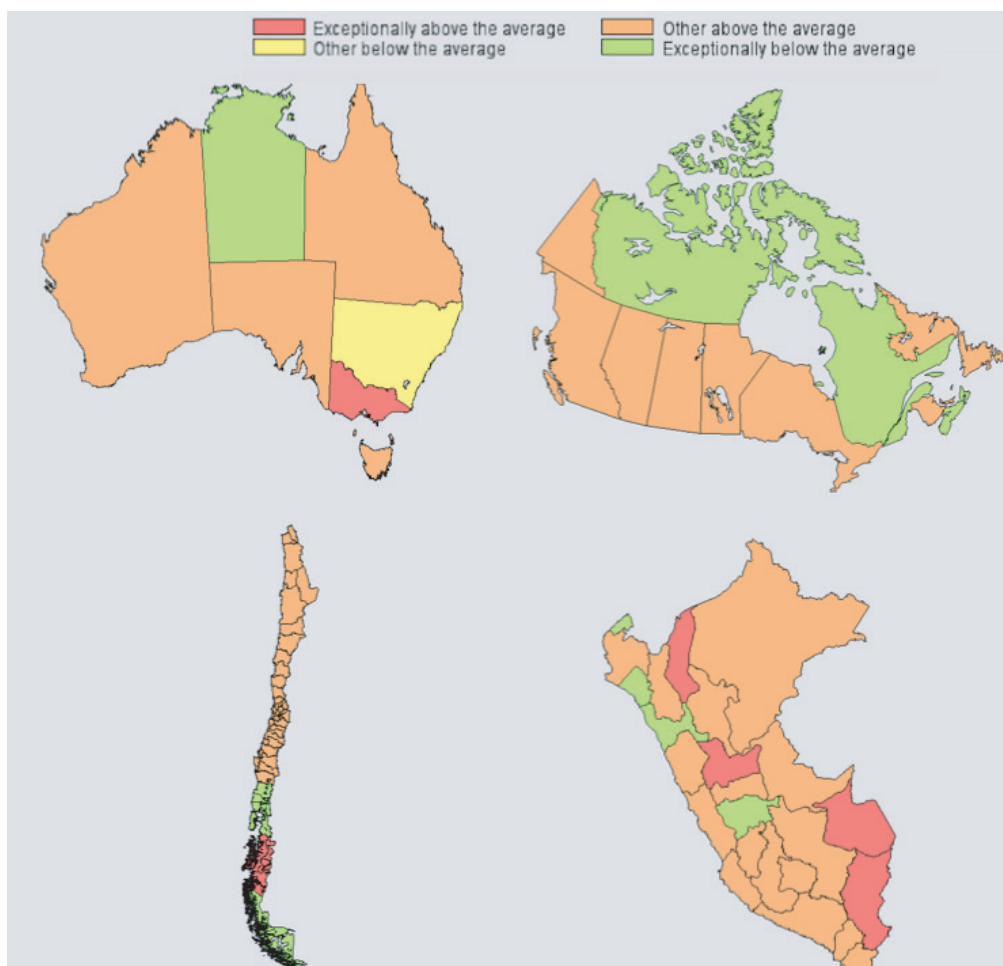
Chile has a lower level of conflict -an index close to 80%. The differences between regions are more marked than in the previous cases (and consequently the coefficient of variation is higher: 0.12). In some regions the index exceeds 85%; in others it is less than 70%. In the first case we can find three regions that are not traditionally related to mining: region 11 (also known as Aysn), region 10 (Los Lagos) and region 12 (Magallanes). It is interesting to note that one of Chile's major mining areas, region 2, also known as Antofagasta, is -along with region 9, Araucana- the stratum of the regions with the lowest levels of conflict (where just 61% of the news are negative).

Figure 3#. Regional mapping of the standarised conflict index
Q1 2003- Q2 2016



Finally, in Peru the contrast between different regions is even starker: in some regions the conflict index is less than 50%, while others approach 90% (the coefficient of variation rises to 0.23). Three regions are particularly controversial: Amazonas, Madre de Dios and Tumbes, while the Ucajali region stands out for having the lowest level of conflict associated with mining.

Figure 4#. Regional mapping of the conflict intensity index
Q1 2003- Q2 2016



Let us now consider the indicator intensity conflict (Figure 4). In the case of Australia, Victoria is the region with the greatest intensity conflict; almost one in twenty words are conflicting. Queensland, which has the highest level of conflict according to our index, recorded a not-so-high intensity, as was expected. At the other end, the Northern Territory, registering the lowest level of conflict, also recorded the lowest rate of intensity (one in every thirty words is adverse).

Canada's intensity of the conflict is much more homogeneous across regions: the variation coefficient is 0.045 and the percentage of negative words varies between 4.0% and 4.7%. Two regions stand out positively for their low intensity conflict: the North West Territories and Nova Scotia.

Regional disparities in the intensity of social conflicts are more pronounced in developing countries. In Chile, for example, regions such as Aysen (region 11), Maule (7) and O'Higgins (6) recorded high levels of intensity conflicts, while Magallanes (12) and lakes (10) recorded the lowest levels. As a result of these differences, the variation coefficient reaches 0.20.

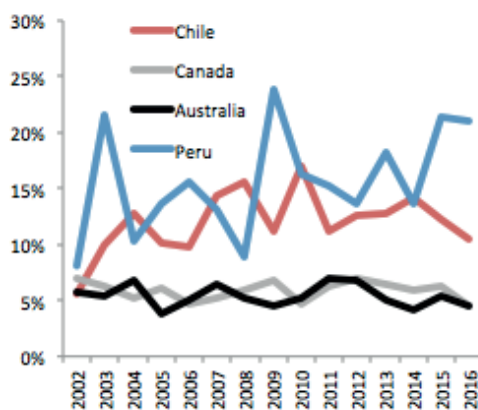
Peru's disparities are even greater. In four regions (Madre de Dios, Huanuco, Puno and Amazonas) the intensity of conflict is high: at least one in every thirty words refers to conflict. Four others, meanwhile, recorded low intensity conflict: Junin, La Libertad, Lambayeque and Tumbes. Variability recorded in Peru is the highest of the four countries under study with a variation coefficient reaching 0.25.

5. Social conflicts in mining (iii): digging a little deeper

It may sound counterintuitive that social conflicts concerning mining activities are more likely to happen in advanced countries, those with most robust institutions, regulations, and governments. This result could be related to the way we build our indexes, where, for example, “death” has the same sense of conflict as “disagreement”. Thus, we should redefine conflict intensity in a way that would allow us to discriminate between violent and non-violent conflicts.

Our strategy is as follows. We developed an index of violent conflict based on the share of conflict words in a given period/country that can be classified as violent, that is $VC_{i,t} = \frac{VW_{i,t}}{CW_{i,t}}$, where $VC_{i,t}$ is the index and $VW_{i,t}$ is the i, t sum of violent words (the subgroup of hostile words that are violent can be found in the appendix). The Figure below presents the results.

Figure 5#. Violent conflicts in Mining 2003- 2016



Note there that, as was expected, violent conflicts in mining activities are more common in developing countries. In Australia and Canada the share of violent conflicts in total hostile conflicts is consistently around 5%. In Chile it yields a U-shaped curve through the period 2002-2016, averaging some 11%. In Peru it shows an increasing trend with high volatility and an average value of 15%.

6. Conclusions

In this paper we study the social conflicts concerning mining activities in four mining countries applying text mining techniques to the leading newspapers in each country for the period 2003-2016. Our main findings are as follows.

First, in advanced countries the level of conflict news is stable and consistently higher than that recorded in developing countries. In these, however, there is a more favorable perception of mining activities, but some conflicts arise throughout the period.

Second, we computed differences between the two groups of countries. In developed countries, Canada shows an increasing trend (starting in lower values) in the level of conflicts, while the intensity of conflict in Canada is higher than in Australia. In developing countries, in turn, while Peru exhibits a growing trend for both the level and the intensity of social conflict, Chile reveals volatility but not a definite trend. In particular, the intensity of conflict in Chile stands out as low and stable.

Third, some interesting results emerge if we measure social conflict at the subnational level. We detect that the amount of news obtained from our mining technique matches the economic importance of this activity. In addition, the average level of conflict in developed countries for the period as a whole is fairly homogeneous across regions, while the disparities are profound in developing countries. Finally, the intensity of conflict is also quite homogeneous in advanced countries and heterogeneous in developing countries (especially in Peru).

Fourth, on splitting social conflicts into violent and non-violent, we found a bias in emerging countries towards the former, particularly in the case of conflict intensity.

Our next steps involve three lines of research. First, improving the indexes, which in turn means to collect more data, to compare different newspapers, and to check the robustness of our indexes. Second, to extend the countries under analysis in order to include African countries and renewables economies. Third, to use the indexes in econometric analysis in order to incorporate this dimension into standard economic analysis.

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Appendix: Hostile and violent words in the text mining exercise

Hostile words in English. abhor, abolish, abrasive, abscond, absentee, abuse, accost, accursed, accusation, accuse, acrimonious, acrimony, admonish, adversary, afflict, aggravate, aggravation, aggression, aggressive, aggressiveness, aggressor, aggrieve, agitator, alienate, allegation, altercation, ambush, anarchist, anarchy, anger, angry, anguish, animosity, annihilate, annihilation, annoy, annoyance, antagonism, antagonist, antagonistic, antagonize, argue, argument, arm, armed, arrest, arrow, assail, assailant, assassin, assassinate, assault, attack, attacker, austere, avenge, aversion, avert, avoid, avoidance, bandit, banish, barbarian, barbarous, bastard, battle, battlefield, beastly, beat, behead, belie, belittle, belligerent, belt, bereave, berserk, besiege, betray, betrayal, beware, bit, bitchy, bite, bitter, blame, blind, block, bloodshed, bloodthirsty, blurt, bomb, bombard, bombardment, bother, bout, boycott, brandish, brawl, breach, break, bristle, broke, brusque, brutality, brute, brutish, bug, bullet, burglar, burglary, butchery, callous, cannibal, cannon, capture, cataclysm, caught, censure, challenge, charge, chase, chastise, cheat, chide, chip, choke, clash, collide, collision, combat, combatant, compel, compete, competition, competitive, competitor, complain, complaint, compulsion, conceal, conceit, condemn, condemnation, condescending, condescension, conflict, confront, confrontation, conspiracy, constrain, contaminate, contamination, contempt, contemptible, contemptuous, contend, contest, contradict, convict, corruption, coup, cranky, crass, criminal, cripple, critic, criticize, crooked, crop, cross, cruel, cruelty, crush, crushing, curse, curt, cut, cynical, dagger, damage, damn, damnable, damned, deadlock, deadly, deceit, deceitful, deceive, deception, deceptive, defeat, defensive, defiance, defiant, defile, defy, degrade, demean, demolish, demon, demoralize, denial, denounce, deny, deplore, depose, deprive, deride, derision, derogatory, desert, despise, destroy, destruction, destructive, deterrent, detest, devastate, devastation, devil, devilish, devious, diabolic, diabolical, disagree, disagreeable, disagreement, disapprove, disavow, disavowal, disbelief, discord, discordant, discourage, discredit, discrepant, discrimination, disgust, dislike, dismiss, disobedience, disobedient, displeasure, dispose, disputable, dispute, disrupt, disruption, dissatisfied, dissent, dissention, distort, distrust, disturb, disturbance, ditch, divorce, drag, dump, egotistical, endanger, enemy, enforce, engulf, enrage, entanglement, epithet, escape, exception, exclude, exclusion, excommunication, execute, execution, exile, expel, exploit, fail, fallout, ferocious, ferocity, feud, fiend, fierce, fight, fighter, fire, fist, fled, floor, foe, fool, force, foreboding, fought, frighten, frown, frustrate, fun, furious, fury, germ, goddamn, grab, grapple, grenade, grudge, grumble, guerrilla, gun, gunmen, hamper, hang, harass, harassment, harm, harsh, hassle, hate, hater, hatred, haunt, heartless, hedge, heinous, hidden, hide, hinder, hindrance, hit, horrify, horror, hostile, hostility, humiliate, hunt, hunter, hurt, hustle, hustler, impair, impatience, impede, impediment, implicate, indictment, indignation, infect, infection, infiltration, inflame, infringement, infuriate, inhibit, inhibition, inhumane, injunction, injurious, injury, insolence, insolent, interfere, interference, interrupt, interruption, intrusion, irk, irritable, irritation, jagged,

jail, jeer, jeopardize, jerk, kick, kidnap, kill, killer, knife, knock, laid, lawless, liar, lie, limit, liquidate, liquidation, litigant, litigation, lying, mad, malice, malicious, malignant, mangle, manslaughter, marksman, massacre, merciless, misbehave, mislead, missile, mob, molest, monster, monstrous, murder, murderous, mutter, nag, nasty, naughty, needle, negate, neglect, nigger, nightmare, obliterate, obnoxious, obstinate, obstruct, offend, offender, offensive, ominous, opponent, oppose, opposition, oppress, oppression, ostracize, oust, outlaw, outrage, pan, parasite, pass, penalty, penetrate, penetration, persecute, persecution, pinch, pistol, plague, plight, poisonous, pollute, posse, prejudice, pretend, pretense, prosecution, protest, provocation, provoke, prowl, punch, punish, push, quarrel, quarrelsome, quibble, rage, raid, raise, ravage, reactive, rebel, rebellion, rebellious, rebuff, rebuke, rebut, recalcitrant, refusal, refuse, reject, rejection, renounce, renunciation, repel, reproach, repulse, resent, resentful, resentment, resist, resistance, restrain, restrict, retaliate, retard, revenge, revolt, revolution, revolutionary, rid, ridicule, rifle, rip, rival, rivalry, robber, robbery, rogue, ruffian, ruinous, rumple, rupture, ruthless, ruthlessness, sabotage, sarcasm, sarcastic, savage, scandalous, scare, scared, scold, scorch, scorn, scornful, scoundrel, scowl, scuffle, seethe, segregation, sever, shadow, shaft, shatter, shock, shoot, shot, shove, shred, shrew, shrug, shudder, shun, shut, sick, siege, sinister, skirmish, slam, slander, slanderer, slanderous, slap, slash, slaughter, slayer, sleazy, slight, sly, smack, smash, smear, snarl, snatch, spank, spear, spite, spiteful, split, spoil, stab, stall, stamp, startle, steal, stern, stifle, sting, stole, stolen, stone, stop, storm, stormy, strangle, strife, strike, stringent, strip, struck, struggle, stubborn, stubbornly, stubbornness, stun, subdue, subversion, subvert, sunder, suppress, suppression, suspect, suspicion, suspicious, sword, taboo, taint, tamper, tantrum, taunt, tear, tease, temper, tempest, tense, terrorism, terrorize, theft, thief, thorny, thrash, threat, threaten, thwart, tire, tired, tnt, torment, tough, traitor, trample, trap, treacherous, treachery, treason, treasonous, trick, trigger, turbulent, ultimatum, undermine, unfair, unjust, unjustified, unleash, unruly, unsafe, untruth, unwilling, unwillingness, uprising, upset, usurp, vengeance, venom, venomous, vicious, victim, vie, villain, violate, violation, violence, violent, wait, walk, war, warlike, warrior, weapon, weed, wench, whack, whine, whip, wicked, wickedness, wily, witch, witchcraft, withheld, withhold, withstand, worry, wound, wrath, wreck, wrestle, wrong.

Violent words in English. aggressive, aggressiveness, ambush, arm, armed, assault, attack, beat, belt, bloodthirsty, bomb, brutality, bullet, butchery, crush, crushing, deadly, fire, guerrilla, gun, gunmen, kill, killer, monster, monstrous, murder, rebel, rebellion, slash, slayer, violence, violent, warrior, whip.

Hostile words in Spanish. abatir, abdicación, abdicar, abofetear, abolición, abolir, abominación, abominado, abominar, aborrecer, aborrecido, aborrecimiento, aborrezco, abrumar, abuchear, abucheo, abusar, abusivo, abuso, abyecto, acéfalo, acérrimamente, acérrimo, aciago, acobardar, acogotar, acorralamiento, acorralar, acosamiento, acribillar, acritud, acuchillar, acusación, adulterino, aflicción, afligido, afligir, agitación, agitador, agobiar, agobio, agolpamiento, agravante, agraviar, agravio, agredir, agresión, agresividad, agresivo, agresor, ahogamiento, ahogar, ahogo, ahorcamiento, ahorcar, ahuyentar, ajusticiar, ajusticiamiento,

alabarda, alboroto, alegación, alegato, alevosa, alienar, altercado, alzamiento, alzarse, embaucador, amedrentar, amenaza, amenazador, amenazar, ametralladora, ametrallar, amilanar, amohinado, amonestar, amotinador, amotinarse, amputar, anarquía, anárquico, anarquista, anatema, angustia, angustiado, animadversión, animosidad, aniquilación, aniquilamiento, aniquilar, anormalidad, antagónica, antagonismo, antagonista, antihigiénico, anticristo, apedrear, apercibir, apesadumbrado, apesumbrar, aporrear, aprehender, apremio, apresamiento, apresar, aprieto, aprisionamiento, aprisionar, apuntar, apuñalar, arma, armamento, armas, arpa, arrebatarse, arredrar, arremeter, arremetida, arrestar, arresto, arrinconar, arrogancia, arrogante, artero, artimaña, asaltado, asaltador, asaltante, asaltar, asalto, asco, asechada, asechancia, asechar, asediar, asesinar, asesinato, asesino, asfixia, asfixiar, asolación, asolar, asustar, atacante, atacar, ataque, atemorizar, atentado, atentarse, aterrador, aterrarse, aterrorizar, atizo, atormentado, atormentar, atosigamiento, atosigar, atracador, atracando, atracar, atraco, atraco, atrocidad, atroz, austero, avasallamiento, avasallar, bandolero, bastardo, batalla, batallador, batallando, batallar, bayoneta, belceb, blico, belicosidad, belicoso, beligerante, bellaco, bestialidad, blasfemar, blasfemia, boicot, boicotear, boicoteo, bomba, bombardear, bombardeo, bravucón, bribón, bronca, cacheteada, cachetear, cachiporra, calamidad, calumnia, calumniador, calumniando, calumniar, calumnioso, calvario, camorrista, canalla, carabina, castigar, castigo, cataclismo, catástrofe, cáustico, celada, censura, censurar, cercenar, chantaje, chantajista, chiflado, chiflarse, cicatero, cínica, claudicar, cleptómano, coacción, coacer, cohecho, cohibir, cólera, colérico, coletazo, combate, combatiendo, combatiente, combatir, combatividad, combativo, complot, complotar, compulsión, condena, condenado, condenar, confabulación, confabular, confiscación, confiscar, conflagración, conflicto, confrontación, confrontar, conjuración, conjurar, conuminación, conspiración, conspirador, conspirar, constreñir, consternar, constreir, contaminación, contaminado, contaminar, contender, contendiente, contestatario, contienda, contradecir, contradictorio, contraponer, contraproducente, contrincante, controversia, controvertir, contumacia, convicto, convulsión, convulsionar, corrompido, corrupción, corruptela, crimen, criminal, crisar, cruel, crueldad, cuartelazo, cuatrero, cuchillo, cuestionar, culpa, culpable, culpar, daga, damnificación, damnificado, damnificar, daino, decapitar, defensivo, defraudado, defraudando, defraudar, defraudo, degollar, degollina, degradar, degradarse, dejadez, delincuente, demonio, denegar, denigración, denigrante, denigrar, denigrativo, denuncia, denunciar, deponer, deportación, deportar, depravado, depredar, derogación, derribar, derrotar, derruir, desacato, desacreditar, desacuerdo, desafiante, desafiar, desafuero, desagradable, desagruar, desalentar, desalmado, desalojar, desalojo, desanimar, desaparecer, desapoderamiento, desaprobación, desaprobar, desaprueba, desasosiego, desastre, desatender, desatinar, desautorización, desautorizar, desavenencia, desazón, desbaratar, descabezado, descalabrar, descalificación, descalificar, descarado, descaro, descontento, descorazonar, descuartizar, descuidar, descuidero, descuido, desdecir, desdén, desdeñoso, desdichado, desencantado, desengañar, desequilibrarse, deserción, desertar, desertor, desesperación, desesperanzar,

desestimar, desfalco, desfigurar, desgana, desgarrar, desgraciado, deshacer, deshacerse, deshecho, deshilar, deshizo, deshonesto, deshonra, deshonrar, desidia, desigualdad, desilusión, desilusionar, desistimiento, desistir, desleal, deslealtad, desmantelado, desmantelar, desmembrar, desmentir, desmoralizar, desnucar, desobediencia, desobediente, desolación, desolar, desaparecer, despecho, despectivo, despedazado, despedazar, despedido, despedir, despiadado, despídos, despojado, despojar, desposeer, déspota, despotismo, despotricar, despreciable, despreciado, despreciar, desprecio, desprestigiar, desquiciado, desquiciar, desquitar, desquitarse, desquite, destacamento, desterrado, desterrar, destierro, destituido, destituir, destripar, destrozado, destrozar, destrucción, destructivo, destructor, destruir, desunión, desunir, desvergonzado, desvergüenza, detención, detestable, detestar, detesto, detonación, detonador, detonar, detractor, devastación, devastar, diablo, diabólico, dictadura, difamación, difamador, difamar, difamatorio, difunto, dimisión, dimitir, díscolo, disconformidad, discordante, discordia, discrepancia, discrepante, discrepar, discriminación, discriminar, discusión, discutiendo, discutir, disensión, disentimiento, disentir, disgustado, disgustar, disgusto, disimulo, dislocación, dislocar, disolución, disoluto, disonancia, disputa, disputable, disputar, disputarse, distorsionar, disturbio, disuasivo, disuasorio, doblegarse, dolorido, dominación, embarullar, embate, embaucar, embestida, embestir, emboscada, emboscar, embrollar, embuste, embustero, embustir, emponzoñar, enajenar, enardecer, enardecido, encarcelamiento, encarcelar, encizañar, encolerizado, encolerizar, encrespar, enemigo, enemistad, enemistar, enemistarse, enervar, enfadado, enfadar, enfadarse, enfado, enfrentado, enfrentamiento, enfrentar, enfurecer, enfurecido, enfurecimiento, engañando, engañar, engaño, engañosa, engañoso, engatusar, engendro, engorro, engreimiento, enjuiciamiento, enjuiciar, enloquecer, enloquecido, enmascarar, enojado, enojar, enojo, ensañamiento, entorpecer, entristecer, envenenar, enviciar, envilecer, epidemia, escándalo, escaramuza, escarmentar, escarmiento, escarnio, escepticismo, eséptico, esclavitud, esclavizar, esclavo, escopeta, esfumarse, espada, espantar, espantarse, espinoso, espurio, estacazo, estafa, estafador, estafando, estafar, estafo, estallar, estallido, estigma, estigmatizar, estrago, estrangulación, estrangulamiento, estrangular, estremecer, estremecimiento, estremezcó, estropeado, estropear, estuprar, evadir, evadirse, evasión, exabrupto, exasperación, exasperar, exclusión, exilio, expatriación, expatriado, expiación, explosión, explosionar, explosivo, explotar, expropiación, expulsar, expulsión, exterminar, exterminio, extinción, extirpar, extorsión, extralimitación, falsificación, falsificando, falsificar, fanfarrón, farfullar, farsa, farsante, fascismo, fastidiar, fastidio, fastidioso, fatal, fatídico, felonía, flagelar, flagelo, flecha, follón, forajido, forzado, forzar, fraccionar, fractura, fracturado, fracturar, fragmentar, francotirador, fratricida, fratricidio, fraude, frustración, frustrar, frustrarse, fuga, fugar, fugarse, funesto, furia, furioso, furtivo, fusil, fusilar, fusta, fustigar, gánster, garrocha, garrote, gatillo, golpe, golpeado, golpear, golpeo, golpismo, golpiza, granada, granuja, gresca, grilletes, grima, guerra, guerrear, guerrero, guerrilla, guerrillero, guillotinar, hastiado, hecatombe, herida, herido, herir, hipócrita, holocausto, homicida, homicidio, horrendo, horror, horrorizar,

horrorizarse, hostigaran, hostigamiento, hostigar, hostil, hostilidad, hostilidades, hostilizar, huelga, huida, huir, humillante, humillar, hurtado, hurtando, hurtar, hurto, huyo, ignorado, ignorancia, ignorar, ilegal, ilegalidad, ilegítimo, ilícito, impedimento, impedir, impeler, impertinente, impiedad, implacable, implosión, impostor, impropio, impropiedad, impudico, impugnar, impurificar, imputación, imputar, inaceptable, incautación, accidentado, incinerar, incitación, incitar, incomodar, incomodidad, incompatibilidad, incompatible, inconvencional, inconsolable, incordiar, incordio, incredulidad, incrédulo, increpar, incriminación, incriminar, inculpación, inculpar, incumplimiento, indebido, indecente, indecoroso, indemnizar, indiferente, indignación, indignado, indigno, indisciplina, indocilidad, indolencia, indomable, ineptitud, inequidad, inescrupuloso, infamador, infamante, infamar, infame, infamia, infección, infectar, infecto, infestación, infestar, inficionar, ingrato, inhabilitación, inhabilitar, inhibición, inhibir, inhumano, injuria, injuriar, injurioso, injusticia, injustificado, injusto, inmerecido, inmolación, inmolado, inmolar, inmoral, inmundo, innoble, inoculación, inquina, insalubre, insano, insatisfecho, inseguro, insensible, insidia, insidioso, insolencia, insolente, instigación, instigador, instigar, insubordinación, insubordinado, insubordinarse, insultante, insultar, insulto, insumisión, insumiso, insurgente, insurrección, insurreccionarse, insurrecto, interferencia, interferir, intimidación, intimidar, intranquilidad, intranquilo, intransigencia, intransigente, intromisión, intrusión, inutilizar, invadido, invadir, invasión, iracundo, irascible, irracional, irracionalidad, irrazonable, irrespetuosidad, irreverencia, irrisorio, irritable, irritación, irritado, irritante, irritar, irrumpir, irrupción, jactancioso, jorobar, juzgar, laceración, lacerar, ladino, ladrón, lanceta, lapidar, lastimar, litigar, latigazos, látigo, leonino, letal, levantamiento, levantarse, levantisco, libertino, linchar, liquidación, liquidar, lisiar, litigante, litigar, litigio, llanto, lloriqueo, lucha, luchado, luchando, luchar, lucifer, luzbel, machacar, machete, madame, magnicida, magnicidio, magullado, magulladura, magullar, mal, malandrín, mal comportarse, maldad, maldecir, maldición, maldijo, maldito, maleante, maledicencia, malevolencia, malévolo, malhechor, malhumorado, malicia, malicioso, malignidad, maligno, malintencionado, malquerencia, malsano, maltratado, maltratar, maltrecho, malvado, malversación, malversado, malversando, malversar, malverso, marginar, masacrar, masacre, mascullar, matanza, matar, matón, mendacidad, mendaz, menoscabar, menospreciar, mentir, mentira, mentiroso, merodeo, metralleta, mezquino, milicia, militar, mintiendo, miserable, miseria, misil, mofa, mofar, molestar, molestia, molesto, molido, monstruo, monstruosa, monstruosidad, monstruoso, montaraz, mordacidad, mordaz, morder, mordida, mordí, mortal, mortandad, mortífero, mortificación, mortificado, mortificar, mosquetón, muerte, muertes, muerto, multa, munición, marginación, mutilar, navaja, nefasto, negligencia, nigromancia, nocivas, nocivo, obcecado, obligado, obligar, obliterar, obsceno, odiado, odiar, odio, ofender, ofendido, ofensa, ofensiva, ofuscación, ofuscado, ojeriza, ominoso, oponente, oponer, oponerse, oposición, opresión, oprimir, opuesto, ostentación, ostracismo, paliza, parricida, parricidio, patrulla, pécora, pegar, pego, pelea, pelen, pellizcar, pelotón, penado, penalizar, pendencia, pendenciero, penitencia, perjudicar, perjudicial, perjuicio, pernicioso, persecución, perseguir, persuadir, perturbación,

perturbar, perversidad, perverso, pervertido, pervertir, pesadilla, pesadumbre, petulante, peyorativo, pillaje, pillar, piquete, pisotear, pistola, pistolero, pistolete, pleiteante, pleito, polémica, polemizar, polución, pólvora, ponzoña, ponzoñoso, porrazo, prejuicio, prescripción, presidiario, profanación, proscribir, proscripción, proscrito, protesta, protestar, provocador, proxeneta, pugna, pugnando, pugnar, pulverizar, punzar, puñal, puñalada, puñetazo, pútrido, quebrado, quebrantamiento, quebrantar, quebranto, quebrar, queja, quejar, quejarse, quejas, quejido, quejoso, querella, querellante, querellar, quiebra, quiebre, rabia, rabiar, rabieta, rapiñar, rapto, rastrero, ratero, reaccionario, rebelarse, rebelde, rebeldía, rebelión, recaída, recalcitrante, recelo, rechazar, rechazo, reclamar, reclamo, recluir, reclusión, recluso, recriminación, recriminar, refrenar, refriega, refunfuño, refutar, regañar, regaño, regicidio, rehuir, rehusar, rémora, rencor, rencoroso, renegar, renuncia, renunciar, repeler, reprobar, reprender, reprensión, represalia, represión, reprimenda, reprimir, reprobar, reprochar, reproche, repudiar, repudio, repugnancia, repugnante, repugnar, repulsión, repulsivo, resarcimiento, resarcir, resentido, resentimiento, resentir, resistencia, resistente, resistir, responsabilizar, resquemor, restringir, reticente, retorcido, retrógrado, revancha, reventado, reventar, revocación, revuelta, reyerta, rezongar, ridiculizar, ridículo, rifle, riendo, rival, rivalidad, rivalizar, robado, robando, robar, robo, rufián, ruín, ruina, ruinoso, ruptura, sablista, sabotaje, sabotear, sacrificar, sacrificio, sádico, sadismo, salvajada, salvaje, sanguinario, saqueador, saqueo, satán, satanás, satánico, secuestrado, secuestrar, secuestro, sedición, sedicioso, segregación, segregar, sentencia, siniestro, sinvergüenza, soborno, socarronera, sofoco, sojuzgar, soliviantar, sollozo, someter, sopapear, soslayar, sospecha, sospechar, sospechoso, sublevación, sublevado, sublevarse, subversión, subversivo, subvertir, subyugar, sumisión, suspicacia, suspicaz, tabú, temerario, tergiversar, terrorismo, terrorista, tirana, tiranizar, tirotear, tiroteo, tirría, torturado, torturar, tosigo, totalitarismo, tóxico, tozudez, trágico, traición, traicionar, traicionero, traidor, traidores, tralla, trampa, trampear, tramposo, transgresión, transgresor, trastornado, trastornar, trastornarse, traumar, traumatismo, trifulca, triturar, trompazo, truhán, tumulto, turba, turbulento, ultimátum, ultrajar, ultraje, ultrajante, usurero, usurpado, usurpando, usurpar, usurpo, vandalismo, vapuleado, vapulear, vendetta, venganza, viciar, vicioso, víctima, vil, vileza, vilipendio, villano, vindicta, violación, violar, violencia, violento, virulento, vividor, zaheridor, zaherir, zozobra, zurriago.

Violent words in Spanish. agresivo, combativo, provocador, violento, agresividad, belicosidad, combatividad, provocación, emboscada, celada, trampa, asechanza, artera, artimaña, emboscar, trampear, asechar, armas, armamento, armado, asaltar, atracar, robar, agredir, acometer, irrumpir, invadir, ataque, embate, irrupción, combate, lucha, agresión, golpear, golpe, sanguinario, choque, asalto, atropello, atentado, coletazo, bomba, explosivo, granada, munición, bala, brutalidad, bestialidad, ferocidad, crueldad, atrocidad, monstruosidad, irracionalidad, vandalismo, salvajada, grosería, masacre, matanza, mortandad, hecatombe, catástrofe, degollina, aplastar, triturar, reventar, destripar, moler, aplastamiento, mortal,

mortífero, letal, fatídico, fatal, funesto, disparar, tirotear, ametrallar, despedir, expulsar, destituir, guerrilla, guerrillero, milicia, arma, pistola, revólver, pistoleta, ametralladora, metralleta, pistolero, atracador, bandido, forajido, delincuente, gánster, terrorista, asesino, matar, asesinar, ahorcar, ahogar, decapitar, desnucar, degollar, fusilar, guillotinar, asfixiar, electrocutar, envenenar, linchar, asesinato, crimen, homicidio, delito, muerte, parricidio, fratricidio, magnicidio, regicidio, criminal, homicida, monstruo, engendro, deforme, monstruosa, rebelarse, incitar, sublevarse, insubordinarse, levantarse, alzarse, amotinarse, insurreccionarse, rebelión, levantamiento, revuelta, alzamiento, revolución, subversión, conspiración, conjuración, sedición, insurrección, motín, acuchillar, apuñalar, lesionar, violencia, exabrupto, coacción, profanación, furia, ensañamiento, violación, implacable, furioso, guerrero, soldado, militar, látigo, azote, fusta, tralla, vergajo, flagelo, zurriago, latigazos, azotando, latigar, azotar, fustar, flagelar.

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