Abstract

We analyze newspaper headlines from the 1973 debate over the Popular Unity Government’s proposed Unified National School (ENU). WordFish identifies the ideological leanings of the principle newspapers, and recovers key arguments: the left’s reliance on control of the Education Ministry (MINEDUC), it’s claim the reforms favored workers, it’s denunciation student opponents of the ENU; the right’s echoing of Church opposition to the ENU, it’s opposition to the use of executive orders to enact the proposed reform, and it’s assertion that the ENU sought to indoctrinate youth. None of the eight newspapers whose headlines we analyze took an ideologically neutral stance.

Introduction

The resurgence of a polarized leftwing in Chilean politics during Sebastian Piñera’s first government leveraged the 2009 takeover of the University of Chile Law School (Jocelyn-Holt, 2013), and a wider rash of student activism during the following two years that propelled several student demonstrators\(^1\) into the Chilean Congress as elected members of the Chamber of Deputies. This focus of the “hard” left on education was not as new as the youthful student protesters made it appear. It resonates with a proposal to centralize education put forward during 1973, the last year of the Popular Unity government: the National Unified School, often referred to by its Spanish acronym: ENU. In both 1973 and 2009/2011 the left sought to expand access to education. As they would nearly forty years later, the left in 1973 sought to centralize education under government control and to cabin in the scope for private education contending that this would facilitate access by the poor, in both 1973 and 2009/2011 the right responded by arguing that the proposed reforms would compromise quality, restrict freedom, and violate constitutional norms. In 1973 despite opposition from

\(^{1}\)Camila Vallejo, Gabriel Boric, Georgio Jackson.

\(^{*}\)We are grateful for financial support from the Universidad de Desarrollo and the Woodrow Wilson School, to Maddalena Maggi and Carlos Hermosilla of the Biblioteca del Congreso Nacional in facilitating access to the newspaper clippings collection, and to seminar participants at the 2018 Midwest Political Science Association Meetings.
the right the UP government decided to force through their proposed reforms using executive orders, only to be pole-axed by the September coup d’état. Just recently Chile president Bachelet rode to election on the promise of free higher education and an end to for profit schools. While there hasn’t been another coup, the first of her promises came in for rough handling by a decline in the price of copper, while the later was neutralized by the March 2018 rejection by the Constitutional Tribunal of a law to implement Bachelet’s promise on the grounds that it was unconstitutional.

To be sure there are some significant differences between the points in contention in 1973, when the left emphasized the importance of the ENU to forging the “new man” as an integral part of a socialist state, and those that came to the fore a half a dozen years ago, which aimed at eliminating for profit schools. To understand better the 1973 agon between the UP and its opponents we turn to a remarkable collection of newspaper articles curated by the Chilean Library of Congress (BCN). Since the mid twentieth century the BCN has maintained a newspaper clipping service for members of Congress, selecting articles of potential interest, and taxonomizing them into politically relevant categories. While this service is of great practical benefit to the legislators whom the BCN serves, it provides subsequent scholars with a useful winnowing of the articles pertaining to a particular public policy issue from among the tens of thousands of other newspaper stories appearing on the pages of the leading circulars.

We report on a preliminary analysis of this collection of articles based on the headlines. We examine these headlines using both topic modeling (Lucas et al., 2015), and the word-Fish model of Slapin and Proksch (2003). When we do a clear picture of polarized positions emerges. Of eight newspapers that contributed more than thirty articles to the corpus five align on the right, while three take positions on the left. The headlines further identify a subset of words used by the left, including references to Superintendent Ivan Nuñez, denunciations of the FESES (Federación de Estudiantes SEcodarios de Santiago), a source of sometimes violent opposition to the ENU, references to work and to workers, and, perhaps not surprisingly, the word “support”.

The headlines also point to a set of words significantly associated with newspapers on the right, including references to the government, and references to the ENU as a ‘position’ or a ‘proposal’, rather than as the law of the land, references to bishops the Church who
opposed the ENU, references to indoctrination, “concientización”, and, not surprisingly, the word “reject”.

In contrast with wordFish, which directs our attention to polarized but low frequency words, when we apply topic modeling to our headline data we encounter a diffuse set of topics dominated by high frequency words of low political polarity such as “education” and “ENU”.

The next section of this paper places the ENU headlines in the context of the final year of the Popular Unity government in Chile. Section (2) describes the source and organization of our newspaper headline data. In section (3) we report our findings, while a brief section concludes and indicates directions for future research.

1 The Context

The conflict between secular and ecclesiastic education was an important element of the nineteenth century conflict between Chilean liberals and conservatives, and in the nineteen fifties the government of Radical Party president Carlos Ibañez del Campo embarked on a massive campaign of school construction that brought basic education to even Chileans of humble means.

Education was again a central element of the political campaign of 1970 that brought Salvador Allende to the presidency. The UP manifesto for that election foreshadowed the ENU with its pledge to

...make the planning of education and the unique national democratic school a reality, the new State will take private establishments under it’s responsibility, starting with those places that select their student body on the basis of social class, national origin or religious faith


Education was then overshadowed by other elements of the UP agenda until, on February 5, 1973 Salvador Allende reactivated discussion of the ENU. This speech was followed by

\footnote{The original: “hacer realidad la planificación de la educación y la escuela única nacional y democrática, (para lo cual) el nuevo Estado tomará bajo su responsabilidad los establecimientos privados empezando por aquellos planteles que seleccionan su alumnado por razones de clase social, origen nacional o confesión religiosa.”}
an Education Ministry white paper Minesterio de Educación (1973) outlining a proposed reorganization of education as part of a project to reconfigure society along socialist lines.

There ensued a sharp debate, with ample press coverage and discussion during March and April. The position of the Catholic bishops solidified in opposition to the ENU, at least in its current form, with the more moderate opponents asking for it to be changed, while more adamant opponents, such as Bishop Emilio Tagle voicing more categorical rejection of the idea. On April 13 Education Minister Jorge Tapia announced that the MinEduc would not implement the proposed reform that year\(^3\). During those months, we now know that the ENU proposal awakened organized opposition to the UP government among the junior officers in the armed forces, with disastrous consequences later in the year for the UP government.

As the first semester of the 1973 academic year came to a close the UP once again revived discussion of the ENU, and even sought to conduct a national opinion poll to legitimize a renewed resolve to implement the ENU by executive order. The ENU once again erupted into the headlines. How the matter would have ended absent the coup of September 11 is something we will never know. As matters transpired, discussion of the ENU came to an abrupt halt with the military overthrow of the UP, and in short order the military government deactivated MinEduc’s plans for the coming school year, while the ENU debate faded into the envelopes of the Library of Congress’s clippings archive to await historical scrutiny.

### 2 The Newspaper Data

For many decades\(^4\) the librarians of Congress in Chile have provided legislators there with a newspaper clipping service that taxonomizes current newspaper articles by issue area and makes them available to members of Congress. This service enhances legislative productivity, as members of Congress are spared having to parse through a dozen or more papers to find the articles relevant to the public debates of the hour. This service works because the librarians are able to anticipate which articles are relevant to legislators’ interests, and for the legislators being informed about public commentary in the press is a matter of political life or death. Because of this, the taxonomy of articles into issue areas offers us a view of the news through the eyes of the political elite.

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\(^3\)The Chilean school year runs from March until December.

\(^4\)The practice dates to sometime before 1950.
Would we have been led to the same corpus had we done a keyword search of newspaper headlines? At present some of the papers in the corpus are not yet electronically rendered such a search this would, strictly speaking have been impossible. But even if there had been, it would have been hard to guess from the title that the signed editorial in La Tribuna entitled “First they seduce, then they beat”\(^5\) was part of the ENU corpus, similarly for a byline in La Segunda entitled “The Mommy State”\(^6\). Having practitioners at the time of the events in question winnow the data is a huge advantage in identifying the relevant corpus.

Maddalena Maggi and Carlos Hermosilla of Chile’s Library of Congress allowed us access to the 635 newspaper clippings grouped under the rubric of the ENU. These articles appeared in 23 newspapers\(^7\) during 1973, with the vast bulk of the corpus generated during March and April:

<table>
<thead>
<tr>
<th>Month</th>
<th>Number of Articles</th>
<th>Month</th>
<th>Number of Articles</th>
<th>Month</th>
<th>Number of Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>enero</td>
<td>4</td>
<td>mayo</td>
<td>37</td>
<td>sep</td>
<td>0</td>
</tr>
<tr>
<td>febrero</td>
<td>8</td>
<td>junio</td>
<td>9</td>
<td>oct</td>
<td>6</td>
</tr>
<tr>
<td>marzo</td>
<td>314</td>
<td>julio</td>
<td>43</td>
<td>nov</td>
<td>1</td>
</tr>
<tr>
<td>abril</td>
<td>201</td>
<td>agosto</td>
<td>12</td>
<td>dic</td>
<td>0</td>
</tr>
</tbody>
</table>

The different papers were far from being equally prolific, with the Santiago daily El Mercurio accounting for more than a quarter of the entire corpus, while the news magazine Vea contributed but a single article. El Mercurio is universally regarded as having opposed the UP government in general, and it’s ENU policy in particular, while at the time La Nación was under the direct control of the government, and so provides a reliable pro-UP benchmark.

\(^5\)“Seducen primero y golpean despues”.
\(^6\)“La ’madre’ estado”.
\(^7\)The source of one of the articles is unknown.
When it was clipped in 1973 each article was stapled to an identity tag giving the newspaper in which it appeared, the date of publication, as well as the page and column number. We assembled a database with these data from the tags, and for each article we added the headline under which it appeared. The library would not allow us to photograph the articles themselves, which we are in the process of recovering from other sources–most are archived in the National Library about ten blocks east of the Library of Congress’s Press Office.

3 Results

Before applying an estimator to the data we first use the \texttt{tm} text processor of Roberts, Stewart, and Tingley to remove punctuation, whitespace, numbers, and Spanish language stopwords, we use the same package to “stem” the Spanish text, while to diminish the danger of “over fitting” we remove sparse terms that are entirely absent from at least 3 of the newspapers in our corpus. This leaves us with a document term matrix of newspaper titles. We are well aware of the cogent advise offered by Denny and Spirling (2018) for checking the robustness of a corpus to different pre-processing decisions, but we do not believe that punctuation, whitespace, numbers or stopwords would provide useful discrimination among newspaper headlines, and we believe that a failure to recognize that pairs of words such as “concientización” and “conscientizar”\footnote{These mean, roughly, ‘indoctrination’, and ‘to indoctrinate’.} in fact refer to the same concept would weaken our
analysis. So we place ourselves in Denny and Spirling’s category of analysts with a strong theoretical preference for our pre-processing decisions.

We now turn to the wordFish estimator of Slapin and Proksch (2003). To eschew unstable estimates of the ideological leanings of newspapers that contribute but a handful of headlines to our corpus we restrict attention to newspapers that generated at least 30 ENU related headlines. This leaves us with eight newspapers in our dataset. In light of our earlier discussion of the ideological leanings of the newspapers, we normalize the government controlled organ La Nación with a location of $\omega = -10$, while we place the anti-UP paper El Mercurio at a location of $\omega = 10$. The estimated $\omega$ values calibrating the leftward or rightward tendencies of the other papers appear in the following table, along with the upper and lower two sided bootstrapped\(^9\) $\alpha = 0.95$ confidence bounds:

<table>
<thead>
<tr>
<th>Newspaper</th>
<th>$\omega_{LB}$</th>
<th>$\omega^{\hat{}}$</th>
<th>$\omega_{UB}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Siglo</td>
<td>-57.459233</td>
<td>-10.755951</td>
<td>-4.7302649</td>
</tr>
<tr>
<td>La Nación</td>
<td>-10.000000</td>
<td>-10.000000</td>
<td>-10.000000</td>
</tr>
<tr>
<td>Puro Chile</td>
<td>-86.688752</td>
<td>-9.691583</td>
<td>-0.4686046</td>
</tr>
<tr>
<td>Tercera de la Hora</td>
<td>9.008801</td>
<td>9.812158</td>
<td>10.2509319</td>
</tr>
<tr>
<td>Las Últimas Noticias</td>
<td>7.433925</td>
<td>9.815683</td>
<td>10.5834176</td>
</tr>
<tr>
<td>La Tribuna</td>
<td>8.310855</td>
<td>9.959899</td>
<td>10.9575324</td>
</tr>
<tr>
<td>El Mercurio</td>
<td>10.000000</td>
<td>10.000000</td>
<td>10.000000</td>
</tr>
<tr>
<td>La Prensa</td>
<td>9.394984</td>
<td>10.363087</td>
<td>11.6460732</td>
</tr>
</tbody>
</table>

Notice that the two reference papers, La Nación and El Mercurio are fixed at their respective normalized values of $-10$ and $10$, while the two other newspapers on the left the Communist Party organ El Siglo and Puro Chile\(^{10}\), have very wide confidence intervals which encompass the normalized location at $-10$ for La Nación, while neither confidence interval brackets zero—we can be confident that both papers, especially Puro Chile, are well to the left of center.

The remaining four un-normalized papers, Tercera de la Hora, Las Últimas Noticias, La Tribuna and La Prensa are all estimated to take positions on the right, and the locations for these papers are fairly precisely estimated, and all three cluster very closely to the

\(^{9}\)We used 32 repliques.

\(^{10}\)Bernedo and Porath (2003) classify Puro Chile as a tabloid paper that represented the Socialist position starting with Allende’s presidential election.
reference paper on the right, *El Mercurio*. These estimates are largely consistent with one’s expectations, that Bernedo and Porath (2003) argue that *El Mercurio* was the ‘serious’ newspaper of the right, while *Las Últimas Noticias* and *La Tribuna* were right leaning papers engaged in “popular combat”. Bernedo and Porath count *Tercera de la Hora* as forming part of the “moderate opposition” to Allende, yet here we find the partisan leanings of the headlines for this paper are indistinguishable from those of *El Mercurio* and the two “combat” papers *Las Últimas Noticias* and *La Tribuna*. We believe that this stems from two related causes, firstly our corpus pertains to the final year of the UP government, at a time in which even moderates became more polarized, and secondly, the ENU tended to provoke moderate opponents of the UP toward more extreme rejection of the Allende government.

What about the vocabulary? After pre-processing, our corpus contains 54 words, of which the bootstrapped confidence intervals reveal that five are earn significantly negative estimates for the ideological position coefficient $\beta$ at the $\alpha = 0.025$ level, while a sixth word stemmed as “apoy”, the root for “apoyar”, or support, nearly does so. We also estimate seven words as being significantly positive at $\alpha = 0.025$, see the following table:

<table>
<thead>
<tr>
<th>Newspaper</th>
<th>$\beta_{LB}$</th>
<th>$\hat{\beta}$</th>
<th>$\beta_{UB}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>ivan</td>
<td>-1.42698707</td>
<td>-0.120659572</td>
<td>-9.842825e-03</td>
</tr>
<tr>
<td>apoy</td>
<td>-0.62227654</td>
<td>-0.118034184</td>
<td>3.657623e-01</td>
</tr>
<tr>
<td>muñez</td>
<td>-0.20057775</td>
<td>-0.100315484</td>
<td>-1.224333e-02</td>
</tr>
<tr>
<td>feses</td>
<td>-0.62440523</td>
<td>-0.084656095</td>
<td>-1.804215e-02</td>
</tr>
<tr>
<td>trabaj</td>
<td>-0.61598025</td>
<td>-0.080700101</td>
<td>-4.317169e-05</td>
</tr>
<tr>
<td>superintendent</td>
<td>-0.17032472</td>
<td>-0.065894029</td>
<td>-6.534572e-03</td>
</tr>
<tr>
<td>gobern</td>
<td>0.01155796</td>
<td>0.079338546</td>
<td>1.439950e+00</td>
</tr>
<tr>
<td>rechaz</td>
<td>0.05788992</td>
<td>0.143461445</td>
<td>9.570237e-01</td>
</tr>
<tr>
<td>posicion</td>
<td>0.16863558</td>
<td>0.211033913</td>
<td>2.527264e+00</td>
</tr>
<tr>
<td>obisp</td>
<td>0.06650336</td>
<td>0.223636345</td>
<td>2.003890e+00</td>
</tr>
<tr>
<td>iglesi</td>
<td>0.14569989</td>
<td>0.225723183</td>
<td>1.612271e+00</td>
</tr>
<tr>
<td>conscientiz</td>
<td>0.15552815</td>
<td>0.228131836</td>
<td>2.560878e+00</td>
</tr>
<tr>
<td>proyect</td>
<td>0.21987789</td>
<td>2.267262128</td>
<td>3.239970e+00</td>
</tr>
</tbody>
</table>
Note that three of the stems on the left, **superintendent**, ivan, **nuñez** pertain to MINE-DUC Superintendent Ivan Nuñez, while the references to **feses** corresponds to the FESES (Federación de Estudiantes SEcodarios de Santiago), a student group on the right who were often involved in street violence and whose doings were frequently demonized in the left of center press. The **trabaj** stem for “work” and for “worker” was a ubiquitous reference on the left at that time, and it reflects the claim by the UP and their sympathizers that the ENU would provide education for workers.

On the right, we see a two references to the Church, obisp, the stem for “bishop”, and **iglesi**, the stem for “church”. Also a prominent part of the vocabulary on the right was **concientiz**, the stem for “concientización” and “conscientizar” reflecting the frequent assertion in the anti-UP press that rather than education the ENU was really the spear point of imposing “reeducation” in the Marxist sense, aimed less at technical or cognitive formation than it was at indoctrinating Chile’s youth as part of a transition to a socialist society. Also prominent in anti-ENU headlines on the right was **rechaz**, the stem for “reject”. The remaining significant words on the right **gobiern**, **posicion**, and **proyect** appear to echo the call for extensive deliberation before the ENU would be implemented.

In retrospect it has become clear that the ENU “…managed to alienate groups which had previously been neutral (with respect to the UP)” (Collier and Sater, 1996). Yet we find but few references to a forum including Education Minister Tapia and the a large gathering of military officers at which the opposition to the ENU by Admiral Ismael Huerta galvanized many lower ranking officers against the government. Of course, the importance of that meeting has become more clear in retrospect than it was at the time, and the headlines we study reflect the perceptions of contemporaries living in the moment.

### 3.1 Word Clouds from wordFish

Rather than report parameter estimates and confidence intervals for the remaining 41 words in our corpus that do not reach the level of statistical significance, we report wordclouds for the terms on the left in figure 1 and the terms of the right in figure 2. Notice that the extreme relative size of the coefficient for **proyect** dwarfs the remaining coefficient estimates on the right. We find it remarkable that so much information about the debate is revealed by an analysis that focuses only on the headlines. We speculate that this process works as well
as it does because newspaper editors composed the headlines to encapsulate the ideological heft of the articles.

Figure 1: Terms of the Left
3.2 Topic Model Results

We also fit a topic model using \texttt{stm} (Lucas et al., 2015). When we allow twenty topics we find that the primary words in each of the topics are very similar, see figure 3. The topic model identifies high frequency words from the \textit{corpus}, and these are mostly neutral from an ideological perspective.

In contrast with wordFish, which highlighted the polarizing words of the left and the right, \texttt{stm} focuses on the words that appear most often in ENU related headlines. In fact, the top three words in all but two of the twenty topics we estimate consist of but four stemmed words, which we report along with their estimated values for $\beta$ and $\psi$:

\begin{center}
\begin{tabular}{lcc}
\hline
\textbf{Newspaper} & \textbf{$\hat{\beta}$} & \textbf{$\hat{\psi}$} \\
enu & 0.024302255 & 3.8104755 \\
unific & -0.004913108 & 3.7097301 \\
escuel & -0.009233356 & 3.8786347 \\
nacional & -0.015967182 & 3.6210026 \\
\hline
\end{tabular}
\end{center}

The remarkable homogeneity of the topics doesn’t provide us with much insight beyond our \textit{corpus} consisting of documents about the ENU, but this is not a trivial assurance. The results from \texttt{stm} do confirm that the librarians working back in 1973 did in fact identify a coherent \textit{corpus} of articles related to the ENU. The topic model latched on to words with very high frequency of use, corresponding to high values of the wordFish $\psi$ parameter, but these were words with extremely tepid ideological content.

Some additional insight about the difference between what topic models do and what scaling methods such as wordFish achieve is offered by figure 4. Here one encounters the values for the ideological parameter $\beta$ plotted relative to the frequency parameter $\psi$. The four most salient words from the topic model correspond with the four points at the top of the plot, with very high values for the frequency parameter $\psi$ and values near zero for the ideological $\beta$ parameter. In contrast, the cluster of four points at the lower righthand side of the plot correspond with \texttt{posicion}, \texttt{concientiz}, \texttt{iglesi}, \texttt{obisp}, all significant terms of the ideological right. The \texttt{proyect} term with its extreme positive $\beta$ value of 2.2673 and its
exiguous frequency parameter of $\psi = -19.8720$ would be far beyond the lower righthand corner of the diagram, and so we do not including it in the plot. The remaining significant rightward ideological terms, rechaz and gobiern have higher frequencies, and correspond with the next two dots moving in from the right, and plotted somewhat higher up. The six points that appear roughly in the form of a capital letter “A” on the lefthand side of the diagram, near the tic mark for one, coincide with the six significant ideological terms from the left. The tendency of ideologically charged words to appear at low frequencies, while high frequency words tend to be ideologically bland was noted by Slapin and Proksch (2003) p.715, who dub the distinctive tri-cornered pattern that these tendencies induce when ideological and frequency parameters are plotted against one another as the “Eifel Tower”.

The topic model fixated on the most frequent terms, the ones that tell us what, in substantive terms, the corpus is about; in the case the ENU. This is what topic models are designed to do. What the topic model is not showing us is the dimension of conflict between left and right. In contrast, wordFish and other scaling algorithms are tailored to recover the dimension of conflict. What we see here is that words that are ideologically fraught, as revealed by the large absolute values for $\beta$ with which they are associated, have frequencies that range from from mediocre, for terms such as trabaj, and rechaz, to downright rare, for words such as conscientiz or proyect. Their low frequencies make these terms unattractive to topic model algorithms, although for some purposes they are the most interesting words of all.

**Conclusion**

We examine newspaper headlines related to the 1973 public debate about the UP government’s implementation of education policy. The government sought to implement a “National Unified School” (the ENU) to shape students into ‘the new man’ who would inhabit a socialist Chile. The opposition was stridently opposed to both the means, which would have impinged in particular on private and Catholic education, and and the ends of this proposal. Our use of the wordFish scaling algorithm reveals the broad outlines of the debate, with newspapers aligned with the UP government asserting the policy would improve workers’ access to education while they denounced anti ENU demonstrations by the student group FESES. On the other side, the anti-UP papers emphasized the ENU’s attempt
to mold students’ consciences and the opposition of the Catholic Church. The estimated positions of the newspapers line up with their *ex ante* characterization by experts, save that our estimated location for the daily *Tercera de la Hora* is statistically indistinguishable from the location of the anti-UP *El Mercurio* despite the expectation that the former would be more moderate in its opposition. We consider this to be a research finding rather than an anomaly—the ENU proposal has been revealed in retrospect to have galvanized opposition to the UP government, and our estimates are consistent with the erstwhile moderate daily paper having polarized over the ENU. We also estimate a topic model using *stm* software, and it confirms that the ENU articles we work with form a coherent *corpus*.

In ongoing research we are consolidating a data set that encompasses the text of the articles in the ENU *corpus* as well as the headlines, and we anticipate a more extensive set of substantive results when we do. For the moment, we are pleased that so many elements of the ENU debate emerge even when we only analyze the headlines. This suggests that analysts should pay more attention to newspaper headlines, which encapsulate a high relative does of editorial emphasis in relatively few words.

**References**


Figure 3: Frequencies with 20 Topics
Figure 4: Comparing $\beta$ with $\psi$