**Loaded Images: Media Polarization in Latin America through the Analysis of Images.**

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**Objectives.**

The main purpose of this project is to assess and explain the levels of media bias and polarization in five Latin American countries by developing an innovative measure based on the analysis of the visual images published by different media sources. The media has always been a key political actor in Latin America, but in the last decade there have been growing concerns regarding the impact of media bias (media that leans either in favor or against government) and in particular about growing levels of media polarization (media that is increasingly divided in its support or opposition to the government). This project uses an innovative methodology based on a survey that advances a comprehensive analysis of the images of politicians published by media outlets to empirically and methodically assess the levels of media polarization in different countries in the region through time. These assessments are then used to explore the causes and political consequences of media polarization. In terms of the causes, this project analyzes the impact of media concentration, government owned media, uneven distribution of government advertising, and the rise of New Left parties on the levels of media polarization. Then, this project also plans to explore the political consequences of media polarization and its impact on public discourse and political polarization at the elite and mass levels. The analysis of the causes and consequences of media bias and polarization will be complemented by qualitative evidence gathered through interviews with politicians, journalists, and media editors in each country under analysis. This project sheds light on the relationship between media and politics, while also contributing to a better understanding of the role of images in the media and their power to convey messages.

**Context.**

The media plays a key role in ensuring the quality of democracy, serving as the most important source of information for the public to evaluate leaders and hold governments accountable. That said, in order for media to play this role—or in order for democratic governance to work—media content needs to be accurate. While freedom of the press remains a pressing issue in certain areas, lately in Latin America the growing concern with the media involves their bias and polarization and their negative effects on democracy. Governments and leaders denounce the bias of certain media outlets that they present as promoting corporate interests (Kitzberger 2012). Critical media outlets denounce the existence of outlets that are loyal to the government, promoting an uncritical account of reality (Alfie 2010). Media bias and the resulting polarization are not just about whether politicians feel undue pressure from journalists; they are about whether the accountability mechanism that is central to representative democracy works. A polarized or biased media distorts information received by the population and can sway public opinion on important policy issues—through framing (Entman 2007), priming (D’Ambrosio 2004), and agenda setting (Soroka et al. 2008). A polarized or biased media can create an unleveled political playing field, where parties or politicians favored by the media receive more and better coverage. Moreover, a polarized or biased media affects both what issues are prioritized and the outcomes of the political process (J. Street 2001). Are media bias and polarization really on the increase in Latin America, as argued by some “New Left” governments? Or is it a claim by leaders looking to sway public opinion in their favor? What factors explain the variation in media bias and polarization? Finally, what are the effects of media bias and polarization on the quality of democracy? Advancing evidence-based answers to these questions is key in furthering our understanding of the complex relationship between media and politics. However, currently we lack analytical tools to track change in media bias and polarization across countries and over time. This project advances an innovative approach to measuring media bias and polarization based on the visual images published by different news outlets in five Latin American countries: Argentina, Brazil, Chile, Ecuador, and Venezuela during a period of five years. The underlying assumption of the project is that the choice of images is deliberate: more biased media outlets tend to publish more consistently negative or positive images of certain politicians, according to the direction of their bias, than non-biased media outlets, which use more neutral images or images that range all the way from negative to positive. Accordingly, this project proposes to gather images of government and opposition figures published by main news outlets in order to create a survey that asks respondents to rank order images published in different media outlets of single politicians from positive to negative. Results will shed light on media bias and create a new measure of media polarization that will allow for its comparative and historical analysis in Latin America.

Originality of the Research Program: This project is the first truly comparative research project on media bias and polarization in Latin America, allowing me to generalize what is thus far a very US-centric set of issues and hypotheses. Moreover, the proposed measuring scheme based on images constitutes a methodological innovation in the study of politics and media, and it has the potential to be expanded to cover other countries and media outlets. The proposed scheme based on visual images combines a creative object of analysis with the use of technological innovations (algorithms to perform automated searches and face recognition, randomized surveys) to create a new measure that sheds light on the complex relation between media and politics.

Significance and Contribution to Knowledge: This project makes considerable contributions to knowledge on a number of fronts. (1) This project will contribute to the analysis of the relation between media and politics in Latin America, a key concern with democracy in the region. As such, it will contribute to ongoing debates in comparative politics and more specifically Latin American politics, on the importance of the media for the quality of democracy. (2) In addition, the use of images to measure bias and polarization constitutes a methodological innovation that makes a significant contribution to the literature in political communication and media studies fields. Once developed, the image-based measuring scheme created by this project can be expanded beyond the sample of cases covered in this study, also contributing to a growing literature on the use of images in politics. (3) In terms of the proposed methodology, the focus on visual images to study presents clear advantages over existing measures—mostly based on the study of the US, Canada, and Europe—that generally rely on media content analysis of the texts of news pieces, coding them according to the use of certain terms or tones. First, the use of images overcomes a major impediment to cross-national research on media content, removing the issue of language. Second, when consuming printed media, people look at most pictures in a publication, while they only read a few articles (Adatto 2008). Therefore, the selection of images can become a more powerful vehicle to convey a message than the published text itself. Third, while the body of news articles are written by journalists, the images that go with the written text are generally directly chosen by editors, making them a more clear medium for the message of the media outlet. In all, this is a project that is likely to grow significantly after the initial phase proposed here—resulting in a future application for an Insight Grant—and that will have a large impact in comparative politics, political communication, social science methods, and media studies.

Theoretical Framework: *Media Bias and Polarization:* The concern over partisanship in the media stems from the fact that people may be influenced by a biased media, resulting in unfair advantages for parties favored by media outlets (Durante & Knight 2012). Bias implies a prejudice in favor or against something or someone compared with something or someone else, usually in a way considered to be unfair. Media bias is only relevant insofar as it is influential, threatening to widely held conventions, and sustained in time (Williams 1975). The polarization of the media implies the existence of media bias both against and in favor of the government (Levendusky 2013, Prior 2007). Therefore, media polarization implies the existence of media outlets that are biased in different and conflicting directions. A media system that leans in a single direction is biased, but not polarized.

Most empirical approaches to media bias and polarization rely on media content analysis. While focusing on different types of bias (gatekeeping, coverage, or statement), research usually looks at specific words (Gentzkow & Shapiro 2007, Soroka 2012), tones (Kahn & Kenney 2002, Druckman & Parkin 2005), or references to particular sources (Groseclose & Milyo 2005) in order to establish whether the media outlets under analysis are biased. Other authors have attempted to measure bias by assessing the partisanship of the readership (Glen Smith 2010, Hamilton 2004, Mullainathan & Shleifer 2003). Yet, most if not all these studies look at single countries (mostly the US) and many analyze either a single media outlet (Soroka 2012) or discrete events (Kahn & Kenney 2002). Moreover, with few exceptions of US based studies (Levendusky 2013, Prior 2007), there is little systematic attention to media polarization. To my knowledge, there are no existing cross-national projects on media polarization focusing on Latin America.

*Media and Democracy in Latin America:* Despite debates over how fully democratic some regimes are, clean elections are the norm to select leaders in Latin America. Therefore, using a minimal definition (Dahl 1971), democracy has become the only game in town in the region. One of the elements that democratization was supposed to come hand in hand with was the emergence of a free and independent press that would keep the citizenry informed and the government accountable (Lawson 2002). However, decades after most democratic transitions the role of the media has become one of the main concerns in the region. The growing attention toward media bias and polarization in Latin America has coincided—arguably not by chance—with the rise of a wave of New Left governments in the region (Kitzberger 2012). Historically, the media in Latin America were often markedly conservative, which combined with conservative governments in many countries, meant that the media often colluded with like-minded presidents (Boas 2013). The rise of New Left leaders meant that certain media outlets, which might have been complicit with prior abuses, became aggressive denouncers of government wrongdoings. Existing research on media bias in Latin America tend to focus on case studies or theoretical discussions that provide valuable insights to media-government relations. However, in terms of creating indexes that allow comparison or analysis through time, there is far less research available. Existing studies focus on specific election periods, and cover individual media outlets in specific countries, following different measuring schemes. (on Brazil: Quenehen 2003, Doxa 2002, Doxa 2006, Massuchin, Tavares, & Nava 2011. On Chile: Hirmas 1993; Tironi & Sunkel 2000, COMUNICAN 2006. On Venezuela: Observatorio Global de Medios 2004, 2009. On Argentina: Pontificia Universidad Católica Argentina 2007, 2011). In all, there are simply no comparative studies that systematically analyze media bias and polarization in the region such as the one being proposed.

*The Study of Images in Politics:*Most studies concerned with the media’s impact on mass attitudes focus on the message contained in the text (Niven 1999); yet media outlets provide visual images together with their written material. These visuals are highly influential, as many studies have showed that images shape people’s attitudes and opinions (Gilliam & Iyengar 2000). It is only logical that given the potential impact of images, media outlets would select them as to convey certain messages. While remaining an underexplored object of research—particularly in political science—some studies focus on images to analyze the tone and impact of specific newspapers (Barret & Barrington 2005a and 2005b). Others use images to analyze the coverage of specific news stories or issues (Gibson & Zillmann 2000, Jenner 2012). Yet others look at specific elections to analyze the coverage of candidates (Goodnow 2010, McCombs et al 1997). The proposed study builds on this literature, but differs in key respects: (1) Images are used to gauge bias beyond single media outlets, evaluating levels of bias and polarization through time and across countries. (2) Rather than relying on the researcher’s analysis or on coders, this project combines the collection of images with a survey that randomizes the use of images, avoiding the researcher’s judgment to cloud the analysis. (3) The comparison used in this project is explicitly of visual images of the same politician published in different outlets, rather than comparing the portrayal of different politicians, which can be shaped by appearance.

Hypotheses:This project tests a set of related hypotheses concerning media bias and polarization in Latin America and its causes. First, given the projects reliance on images published by the media in the region, this project evaluates whether this is actually a useful tool to measure bias.

*H1. Media outlets publish images that follow their political stance.*

This hypothesis captures the underlying arguments of this project. Existing work is very limited in its coverage of cases, which is a large motivation for this project. That said, this project tentatively evaluates the reliability of the created measure by comparing the results obtained with existing, albeit limited, individual measures of media bias in each country (e.g. Doxa 2002 and 2006).

Second, this project systematically explores three key causes that have been associated to media bias and polarization: media ownership (Balan et al. 2004), the existence of public media and uneven distribution of government advertisement (Djankov et al. 2001), and the emergence of the “New Left” in Latin America (Kitzberger 2012). In terms of media ownership, it is argued that higher concentration of media ownership results in more media bias, as there is a “unification of editorial lines” that support specific views (Becerra & Mastrini 2009, p. 35). This project uses secondary data on media ownership to evaluate this hypothesis.

*H2: Higher levels of media ownership concentration are associated with higher levels of media bias.*

In Latin America public media is generally seen as a synonym for government-controlled media (Coyne & Leeson 2009). It is argued that the existence of public media generates a marked contrast with private media, generating higher levels of media polarization, with media outlets either clearly supporting or undermining the government. This project collects secondary data on the existence and market-share of public media outlets (Becerra & Mastrini 2009) in order to test this hypothesis.

*H3a: The existence of government-controlled media (public media) in a country is associated with higher levels of media polarization.*

This hypothesis also speaks to the literature on public media in the developed world, where the general assumption is that public media are neutral. Therefore, this project adds to a body of work that makes clear that things work differently in different places, contributing to an important question in the study of media: are public media good for political knowledge and accountability?

Governments try to exert influence by assigning government advertisement in selective ways so as to support media outlets that are in favor of the government (O’Donnell 2007). As a result, the selective distribution of government advertisement can result in increased media polarization, as outlets are reinforced in their support for the government or lack thereof following the distribution of much needed publicity funds (Besley & Prat 2006, Di Tella & Franceschelli 2009).

*H3b: Uneven distribution of government advertisement spending (not following market share of the media outlet) is associated with higher levels of media polarization.*

As argued earlier, the growing concern with media bias and polarization is connected to the rise of the “New Left” in Latin America, which is said to have increased levels of political conflict in the region (Levitsky & Roberts 2011). This project codes the different leaders according to whether they belong to this left turn in the region and analyzes media bias and polarization both before and during their mandates, to test whether the presence of “New Left” leaders has an impact.

*H4: The presence of “New Left” is associated with higher levels of media bias and polarization.*

**Methodology**

Image Collection and Survey Design:The proposed project centers around the creation of a survey that asks respondents to score images of the same politician published by different media outlets during the same time period on a range from positive to negative. Results are aggregated by media outlet to assess its bias, and then by country, resulting in a measure of media polarization. The survey requires a prior step, which is to collect the images to be included. The image collection process will follow a process that begins by selecting the media outlets and choosing the politicians that will be analyzed. In each country I will select 4-6 media outlets. The criteria for selection will be to ensure that a large share of the media market is represented. Politicians in each country will be selected by relevance: in total 4-6 politicians will be selected for each country during each period under analysis, and the figures will represent both the government as well as the main opposition parties. Once these parameters are set, I will collect and store images through an algorithm designed using MatLab, which allows me to download all images published in specific websites. I will then sort out the images corresponding to the politicians under study using a face recognition algorithm. This will result in a database containing the images of politicians and their metadata (where and when they were published, the size of the image). The online survey—hosted at SurveyGizmo—will randomly draw images of the same politician published in different media outlets during the same period and ask respondents to score them. Each respondent will be asked to score 3-5 sets of images, resulting in a 15-minute survey. The survey will include background questions (age, gender, level of education) and knowledge questions. The survey will be first administered to McGill University undergraduate students (a pilot study is in course during the Winter semester of 2014), before being administered in each country. Since this is an online survey, I will rely on fellow university professors with whom I have established prior connection to recruit respondents in each country.

Data Analysis:Data will be aggregated by month, providing a fine-grained measure that will allow for the analysis of change through time and across cases. The analysis of the causes of media polarization in the region will be performed using times series and time series-cross section estimation techniques (see Beck & Katz 2011). In order to conduct such analyses, this project will also collect existing data on the relevant explanatory variables: media ownership, media circulation, and public media (Becerra & Mastrini 2009), and public opinion data on government and opposition parties (Latinobarómetro).

*Interviews:* I will travel to each country under study in order to interview politicians, journalists, and media outlet editors. The purpose of the interviews is two-fold. On the one hand, interviews with news editors are meant to shed light on the image selection process in different media outlets. On the other hand, interviews with journalists and politicians are intended to gather a deeper understanding of the relation between the media and the political sphere in each country.

Case Selection:The criterion to select the five countries under analysis is based in ensuring variation in the following elements. (1) Presence of New Left leaders; with countries fitting three broad categories: high in Ecuador and Venezuela; medium in Argentina and Brazil; Low in Chile (Weyland, Madrid & Hunter 2010). (2) Level of confrontation between government and the media: high in Argentina, Ecuador, and Venezuela; medium in Brazil; low in Chile (Kitzberger 2012, Waisbord 2013). (3) Level of media ownership concentration: high in Chile and Venezuela; medium in Argentina, Brazil and Ecuador (media concentration in Latin America is generally high, and there are no exceptions. Becerra & Mastrini 2009). Moreover, these countries represent a large percentage of the population in South America. Cases will be analyzed for a period of 5 years during the last decade, so as to cover more than a single presidency in each.

**Relationship and Relevance to ongoing Research.**

My prior research focused on the emergence of corruption scandals in Argentina, Brazil, and Chile. More specifically, I analyzed the causes of corruption scandals as mediated events, showing how dynamics of political competition helped explain the timing and likelihood of corruption scandals in three different Latin American settings. While the proposed research project implies a change in direction, there are a number of elements that are common to both projects, and in fact, the development and thought process behind the proposed project stems directly from my prior research. In analyzing corruption scandals I paid special attention to media dynamics in the region, which are an essential actor given that all corruption scandals, by definition, take place in the media. As this research progressed, I became increasingly interested in the interplay between media and politics, and the overall perceptions of polarization in the media. In fact, the research questions motivating this project on media polarization emerged from issues I came across during my prior project. Moreover, research on corruption relied on an original database of media scandals based on media content analysis, through which I became familiar with the different media markets in a number of countries, knowledge that comes in very handy for my current research project. In all, I see this new project as a significant shift in focus, but also as a natural next step after having done research on corruption scandals in Latin America.