On October 2nd, 1968, a student movement that had been building for months came to a bloody climax in Tlatelolco, Mexico City. Shortly after 5,000 to 15,000 activists assembled, soldiers began indiscriminately shooting into the crowd. President Díaz immediately issued a statement that the death toll was “more than thirty and less than forty” (Borden 2005, 2). However, witnesses believe that between three and four hundred people actually died that night, with many more injured. The details of the massacre were not pursued and remain obscure. The media passively reported the government’s version of events, and its silence with regard to the Tlatelolco Plaza Massacre earned it the reputation of avoiding controversial issues (Lawson 2003, 50).

Fast-forward twenty-seven years to Aguas Blancas, Guerrero. In June of 1995, a truck filled with leftist activists was ambushed by the police, leaving seventeen dead. In contrast to the Tlatelolco Massacre, the story surrounding the Aguas Blancas incident was heavily pursued by the media. Newspapers such as Reforma and La Jornada provided detailed investigative coverage of the affair as well as the subsequent government cover-up. Even the television monopoly Televisa, considered to be traditionally compliant with the government, aired a video of the massacre. The governor of Guerrero was revealed to be implicated in the ambush and, in 1996, was forced to resign as a result of his involvement. As articulated by journalist Roberto Zamarripa, “Massacres in Guerrero are not new. What is new is that they are broadcast on television” (Lawson 2003, 45). In 1968, the press remained silent after hundreds were murdered. In 1995, the press actively investigated the deaths of seventeen peasants, and the result was political change.

The interplay of the press and the political apparatus in Mexico raises a question that has previously remained largely unexamined; that is, what is the relationship of the media to the process of political change? In this article, I hypothesize that media freedom is causally linked to democratization. Although studies investigating the causes of democratization have proliferated, research regarding the media’s role in this process is rare. As a result, the relationship between the media and democratization is understudied.

This article seeks to contribute to the literature on democratization by examining the media’s causal relationship to political liberalization. First, I briefly review the major theoretical research regarding democratization and the media. I then provide an account of why media freedom contributes to democratic development. Specifically, I highlight two causal mechanisms, The Civil Society Function and The Opposition Function. The Civil Society Function, most often carried out in the print media, describes the media’s role in facilitating a public sphere in which elites can communicate. In contrast, in accordance with The Opposition Function, the media furthers political liberalization by increasing the public’s awareness of alternative political candidates. Because of its vast distribution, the broadcast media best performs The Opposition Function. The case of Mexico is examined to provide a concrete illustration of each of these functions of the media in relation to democratization. In the third section, I show the explanatory ability of the media on democratization, tested empirically against competing conventional explanations of democratization. To do so, I use the ordinary
least squares method on time-series cross-sectional data of 200 countries measured annually from 1980-2004. The data and methods are described, as are the empirical findings and their theoretical implications.

The Puzzle

Theories of Democracy

Over the past three decades, the world has experienced a proliferation in the number of democratic states. Between 1974 and 1990, over thirty countries shed authoritarian rule in what Huntington terms the “third wave” of democratization (Huntington 1991). As a response to this “wave” of democratization, comparativists began to articulate a variety of approaches to study political liberalization. However, previous studies relating to democratization have been, for the most part, disconnected from a discussion of the media’s role in this process. Rather, out of this expansive body of literature, two schools of thought, structuralism and voluntarism, have prevailed. The first, structuralism, focuses analysis at the macro-level, examining the economic and social structures that shape society. Second, voluntarism employs micro-level analysis to study how the actions, preferences, and interactions of political agents affect democratic transition. In other words, the debate between models boils down to the question of the role of socioeconomic structures as opposed to human agency in democratization.

The structural perspective asserts that democracy emerges as a result of economic development and the corollary social transformations. This model was first pioneered by Seymour Martin Lipset in 1959. In “Some Social Requisites of Democracy: Economic Development and Political Legitimacy,” Lipset articulates the premise of structuralism:

…in dealing with democracy, one must be able to point to a set of conditions that have actually existed in a number of countries, and say: democracy has emerged out of these conditions, and has become stabilized because of certain supporting institutions… (Lipset 1959, 69)

Lipset subsequently asserts that greater affluence in a society leads to democratization. He highlights how the developments associated with increased societal wealth, including urbanization, education, communications media, and a growing middle class, create the conditions in which groups and individuals have a number of cross-cutting political ties. These cross-cutting cleavages moderate political tensions, and also allow for greater political cosmopolitanism and pluralism, which, in turn, enhance the prospects for democratic stability (Lipset 1959, 97). The theme that economic development helps to devolve authority and proliferate democratic ideals has since become a predominant theory in structuralist literature (e.g., Lipset and Seong 1993, 155-174; Bollen and Jackman 1985, 27-48; Huntington 1984, 199; Diamond et al. 1987, 10).

Voluntarism abandons the idea of functional requisites of democracy and instead discusses democratization as a multistage process in which each phase has its own logic and protagonists (Ruskow 1970, 25). Przeworski and Limongi explain the intuition behind the voluntarist focus on actors and strategies rather than deterministic conditions; they write, “The protagonists in the struggles for democracy could not and did not believe that the fate of their
countries would be determined either by current levels of development or by the distant past” (Przeworski and Limongi 1997, 176).

Two noteworthy works, Przeworski’s *Democracy and the Market* and O’Donnell and Schmitter’s *Transitions from Authoritarian Rule*, expand and further articulate the voluntarist model and its premises. Przeworski argues that democratization will occur and succeed only when all political actors and coalitions in a society perceive the transition to be beneficial. In this way, he emphasizes the importance of an equilibrium outcome among self-interested actors, and, thus, the necessity of compromise (Przeworski 1991, 30). O’Donnell and Schmitter stress the role that the strategies of “high-echelon, dominant personnel in the incumbent regime” play in the transition from authoritarian rule (O’Donnell and Schmitter 1986, 19). They draw the distinction between hard-liners (elites who believe that the perpetuation of authoritarian rule is viable and preferable) and soft-liners (elites that are aware of the limitations of the incumbent authoritarian regime). According to O’Donnell and Schmitter, at the onset of liberalization, soft-liners believe they can control the transition and hard-liners begin to find it difficult to gain support, as most societal actors have turned to the soft-liners. The difficulty of hard-liners in recruiting supporters escalates as fence-straddlers begin to side with soft-liners and disorder and conflict peak. Finally, institutional arrangements adapt to accommodate popular demands. (O’Donnell and Schmitter 1986, 26-28).

**Theories of the Media**

Indeed, many of the potential processes and factors leading to liberalization have been teased out in past literature. However, the role of the media as a potential cause of democratization has only been mentioned as an intermediary link between economic modernization and liberalization. Instead, the media’s role in society has been approached from three primary angles: the effects of the media on the individual, the role of the media as the mediator between states and citizens in democratic societies, and the theoretical role of public journalism.

On a micro-level, the media is viewed as a “collective educator” (Ansah 1991). The education provided by the media leads to the intellectual and political development of individual citizens. Salcedo demonstrates the positive effect that mass media exposure has on “innovativeness,” defined as the “degree to which an individual is willing to adopt earlier new ideas than other members of his social system” (Salcedo 1971, 626-633). Further, studies have demonstrated the inherent link between mass media exposure and modernity (Lerner 1958, 46; Inkeles and Smith 1983, 133). Inkeles and Smith found that individual modernity is “associated with voting, joining public organizations, and participating in public actions, interacting with politicians and public figures, taking an interest in political news, and keeping up with political events” (Inkeles and Smith 1983, 21). Thus, we see that mass media exposure may cause individuals to think in a more modern, innovative way, leading to greater political interest, knowledge, and participation.

On a larger scale, the media is traditionally viewed as the “vital hinge” between the government and the citizenry (Righter 1978, 16). The press informs citizens, communicates the citizens’ needs to the government, and monitors government activities by exposing infractions. The role of the media as an intermediary and watchdog suggests why the media may play an influential role in causing democratization. However, most research has focused on the role of
the media in established rather than developing democracies. Within democratic societies, formal
government institutions and agencies provide vertical accountability. The media and other
organizations that compose civil society check an administration’s power and punish government
abuses. Further, the media serves to communicate public opinion, which is imperative to the
pursuit of horizontal accountability (O’Donnell 1998).

In contrast to these comparative approaches, political theorists make normative claims
regarding what the role of the media should be. Theories of public journalism assert “that
journalists should actively engage citizens in the democratic process” (Haas 1999, 353). The
ultimate goal of public journalism is to foster public deliberation and inform citizens. Journalists
are seen as playing a fundamental role in the democratic process, and, through their reporting,
are able to inspire citizens to seek and support liberal institutions (Dzur 2002, 313). Though this
system ideally does lead to democratization or a deeper form of deliberative democracy, it is
regarded as an ideal rather than as a realistic mechanism of democratization.

Filling the Gap

When examining the bodies of literature surrounding democratization and the media, it is
apparent that the influence of the media as a potential cause of democratization has been
overlooked and underestimated (Randall 1993, 644). There are several potential reasons for the
lack of research regarding the role of the media in democratization. Though it is generally agreed
that the media plays an important role in democracies and even during democratic transition, the
press is seen as a caboose in the process of democratization rather than as the engine. As Lawson
articulates, “there is a default hypothesis…[that] the emergence of a free press is simply a
product of broader opening in the political system” (Lawson 2002, 3). Another possible reason is
that television, an increasingly influential medium of communication, is instinctively distrusted
within the humanistic culture. As television played a greater role in mass communication,
intellectuals were reluctant to characterize it as a cultural force or a factor in politics (Skidmore
1993, 8).

Chappell Lawson did find that the opening of the media contributed to the movement
toward democracy in Mexico. However, he comments that, though this phenomenon may be true
for Mexico, the “lack of rigorous, scholarly research on the role of mass media in political
transition makes the generalizability of these findings difficult to assess” (Lawson 2002, 196).

The deficiency of generalizable research examining the implications of the media in the
democratization process has left a gap in the scholarly work regarding the causes of political
liberalization. It is my hope to begin to fill this gap.

3.0 The Causal Mechanisms

In 2003, two farmwomen approached Vicente Fox, teasing him that he looked as good as
in person as on TV:

“Ah,” said Vicente Fox, playing along. “How do I look?”
“Handsome,” they replied, “and your government is moving along nicely too.”
“Moving along, are we? You obviously don’t read the newspapers,” the president
said.
“No, I can’t read at all, but I watch you on TV,” responded one of the women.
“You are better off that way,” the president told her. “You’ll be happier.”
(Venegas 2003; Hughes 2003, 191)

In many developing countries, a wide percentage of the population is, like these women, illiterate, and, thus, reliant on the broadcast media. This quote additionally demonstrates that the information distributed by one media source may not be commensurate to the information distributed by another form of media. For these reasons, it is necessary to consider not only the different ways in which the press may influence political liberalization, but also the disaggregated effects of the print and broadcast media. In order to discuss the causal mechanisms associated with the impact of the print and broadcast media on democratization, I refer to a previous case study of Mexico (Cohn 2007).

**The Print Media and the Civil Society Function**

During the 1980s and 1990s in Mexico, the print media became increasingly autonomous and assertive. Certainly, the movement of the print media toward independent reporting did affect Mexican society, but the effects were confined primarily to an elite public sphere¹, as circulation was not great enough to affect the general electorate. In other words, the unbiased print publications were most important in contributing to the formation of the civil society. As Bruhn and Levy write,

*Publications that have most used the room for free expression have not matched others in terms of circulation. This does not make those newspapers unimportant. Politically informed, influential Mexico still rely more on newspapers than on television, and the elite gravitates to a few select publications. (Bruhn and Levy 2001, 121)*

Thus, while the influence of the print media on the general electorate was limited, Mexican newspapers gained importance because of who read them.

Consider, for example, the role of the print media prior to the 1994 general election. Newspapers were vigilant in providing the public, and, particularly, the Mexican elite, with coverage of the Zapatista uprising. The independent print media became a battleground where writers sought to move public opinion in support of or in opposition to the Zapatistas and, in turn, in favor of one of the presidential candidates (Brewster 1996, 190).

The debate about Chiapas soon transformed into a debate about democratization, a great deal of which continued to take place in the print media. In response to the violence, shortly after the Chiapas uprising, the “20 Compromisos por la democracia,” issued by Demetrio Sodi de la Tijera, was signed by more than 2000 influential Mexican citizens (Brewster 1996, 153). This document contained a pledge to implement political reforms, facilitate impartial elections, and strengthen civil society. Intellectual rivals united to sign this document, believing that it had the power to transform the political system (Brewster 1996, 170). Mexican elites, joined by the

¹ I subscribe to Habermas’ definition of the public sphere as “a realm of our social life in which something approaching public opinion can be formed” (Habermas, 1989, p. 136). Further, it is a space in which citizens exchange information from a plurality of sources. The terms public sphere and civil society are used interchangeably.
cause of democratization, were further able to pressure the Salinas administration to institute electoral reforms and to persuade political parties to agree to facilitate impartial elections. Thus, the print media was instrumental in providing a forum for intellectual discussion regarding democratization during the social unrest that preceded the 1994 campaign. In this way, the print media helped to solidify civil society. In turn, civil society was able to push the issue of democratization onto the political agenda.

This example illustrates the Civil Society Function of the media and, in particular, the print media. By disseminating information and sentiments within civil society, the print media contributes to the formation of public opinion. When political control is subordinated to democratic demands that are articulated by public opinion, civil society is able to influence policy. Thus, in order for the democratic process to function and develop, it is vital that information is accessible to the public (Habermas 1989, 136). In particular, it is important that information is available to those citizens who most directly influence the opinions of society at large: the elites (Zaller 1992, 8). Because the distribution of information is central to the formation and maintenance of civil society, and, in turn, democracy, journalists play an invaluable role in increasing civic commitment, motivating citizen participation, and encouraging the discussion and implementation of democratic ideals (Has 1999, 348).

The Broadcast Media and the Opposition Function

The second way in which the media produces democratic development is by drawing attention to alternative political actors, what I refer to as The Opposition Function. In authoritarian systems, the media serves one master, the government in power. An autonomous media can focus on several parties, organizations, and individuals. In societies where one party has ruled, citizens often lack the knowledge needed to feel comfortable voting for the opposition; as a result, information gained through any medium is often as a predictor of support for the opposition (Lawson 2004b, 202). This is particularly true when the media legitimizes opposition parties, rather than portraying them as unstable and even dangerous peripheral groups.

Once again, let us return to the case of Mexico in order to illustrate the Opposition Function. In 2000, the Mexican electorate ousted the PRI from power for the first time since 1929. The impact of the media was significant, and there is evidence to suggest that it may have swung the election in favor of the opposition presidential candidate, Vicente Fox. While newspapers were an important source of electoral information for Mexico’s elite, broadcast media coverage was the most prevalent form of electoral news for the general electorate. Ninety-three percent of Mexicans reported watching television in February of 2000; of this percentage, two thirds relied on Televisa or Televisión Azteca, the two major stations, for nightly news (Lawson and McCann 2004, 4-5). In contrast to coverage of past presidential elections, Fox’s party, the PAN, received at least as much airtime as the PRI, and the tone of coverage was relatively neutral (Lawson 2004b, 188). For the first time on television, the opposition presidential candidates were able to present themselves on equal footing as the PRI nominee. By 2000, both television stations had adopted a far more professional and autonomous style of reporting. However, Televisa favored the PRI, while TV Azteca reported with a bias in favor of

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2 This figure can be compared to survey data results from 1988 revealing that 46 percent of Mexicans never read the newspaper (Domínguez and McCann, 1996, p. 31).
the PAN. As a result, TV Azteca viewers were far more likely to vote for Fox; indeed, Lawson and McCann find that this discrepancy may have been wide enough to swing the election in Fox’s favor, demonstrating the regime-changing effect of a free media (Lawson and McCann 2004, 12).

Dominguez and McCann write that, during the process of political liberalization, Mexican voters took a two-step approach to decision making. First, voters judged whether they supported the ruling party, the PRI, and considered the “party of the state” to be capable of making national policy in the future. If the answer to this first question was “no,” the voters would turn to the opposition (Dominguez and McCann 1996, 78).

In accordance with this approach to electoral decision-making, the broadcast media’s impact on the 2000 election results was twofold. First, the media’s reports of government scandals delegitimized the PRI. In the late nineteen-nineties, press coverage of scandals began to take on a “‘feeding frenzy’” quality (Lawson 2003, 139). By reporting scandals in rapid succession, the media encouraged the perception that individual scandals were not merely diversions from normalcy, but rather part of a system of institutional corruption. Consequently, the press and particularly the broadcast media, contributed to the delegitimization of the regime and disillusionment of Mexican citizens. This, no doubt, was a factor in the willingness of the electorate to seek political alternatives.

Second, for those voters who sought political change, the broadcast media provided cues to aid in the decision between the opposition candidates, Fox and PRD nominee Cuauhtémoc Cárdenas. Fox’s adept campaigning and focus on getting his name in the news was successful. Moreover, though televised debates increased the electorate’s familiarity with all candidates, for the most part, they gave Fox an additional boost in the polls. Fox’s widespread recognition due to his prolific media coverage proved crucial in influencing the final outcome of the election (Lawson and McCann 2004, 4). The apprehensive Mexican public felt comfortable with Fox and did not think of him as an inconsequential fringe candidate. In this way, Fox’s widespread publicity campaign diminished the “fear factor” that had shaped the presidential vote in past elections (Camp 2003, 34).

In sum, the media’s Opposition Function, best fulfilled by the broadcast media due to its vast audience base, is twofold. First, the media facilitates democratization by discrediting the authoritarian regime. Second, by drawing attention to and legitimizing alternative political actors, the media turns a vote against the party of the state into a vote for a particular opposition candidate.

The Large-N Study

Having given the theoretical account of why the media is causally related to democratization, I now turn to the empirical analysis of this hypothesis.

Operationalization and Measurement

The Independent Variable: The Free Media. There are three central traditions within which the media is defined: authoritarian, developmentalist, and Western. Within the authoritarian media tradition, the press is always controlled by the state, either explicitly or implicitly (Hachten 1996, 16). The developmentalist approach, popular across the third world, asserts that
the goal of mass communication must be to aid the government in nation building (Hachten 1996, 35). As such, free speech and journalistic independence are subordinated to the overall goal of development (McQuail 1987, 120). The Western conception of media describes a press that is free from government control. The media is viewed in the Western tradition as playing a fundamental role in the democratic process, and, as such, must be free to report without the threat of government retaliation (McQuail 1987, 120; Hacten 1996, 16; Righter 1978, 16).

Clearly, the Western conception of journalism intuitively describes a free media, and the authoritarian conception of media stands in direct opposition to this concept. Thus, in operationalizing the concept of the free media, I subscribe to the Western media tradition.

Media freedom scores are calculated using Freedom House’s *Freedom of Press Index*. Freedom House measures vary over time. From 1980-1989, disaggregated print and broadcast media scores are given; for these years, the two scores were averaged and mapped onto a three category, ordinal scale to create an aggregate media freedom score. Higher scores were calibrated to indicate greater media freedom. From 1989-1994, Freedom House reports countries as free, not free, or partially free; these categories were converted into numerical scores, where one represents not free, two represents partially free, and three represents free. Finally, from 1994-2004, Freedom House ranks countries on a scale of zero to one hundred, with low scores indicating greater media freedom. For ease of interpretation, this scale was reversed so that high scores would be designated to countries with free medias. Additionally, I recalibrated the zero to one hundred scale to a zero to three scale so that this variable would be comparable with prior years.

I run separate models with print and broadcast media freedom as independent variables. These models examine the isolated effects of these mediums and indirectly test the strength of the *Civil Society* (associated with the print media) and *Opposition* (associated with the broadcast media) functions. Again, print and broadcast media freedom scores were calculated using Freedom House and then recalibrated so that scores of zero indicate a lack of media freedom and scores of three indicate perfect freedom. The fact that there was no disaggregated data after 1989 presented a significant problem that will be addressed in a subsequent section on missing data.

**The Dependent Variable: Democratization.** In defining democracy, I subscribe to Huntington’s characterization of democratic systems: “A political system is defined as democratic to the extent that its most powerful collective decision-makers are selected through periodic elections in which candidates freely compete for votes and in which virtually all the adult population is eligible to vote” (Huntington 1984, 195).

I have chosen to limit the definition of the dependent variable to the political, as opposed to civil, aspects of democracy. A free media is inherent to the idea of civil democracy. As such, to avoid selection bias, the operationalization of democratization only takes into account the political characteristics of democracy, primarily contestation and participation. Emphasis is placed on the democratic nature of the selection process of the executive, constraints on the executive, political competition, and political participation. Because of the multidimensional quality of democratization, no discussion of democracy can measure the concept explicitly. However, as noted by Alex Inkeles, there tends to be an agreement in measures of democracy:

> Democracy is a distinctive and highly coherent syndrome of characteristics such that anyone measuring only a few of the salient characteristics will classify nations in much the same way as will another analyst who also measured only a
few qualities but uses a different set of characteristics, so long as both have selected their indicators from the same larger pool of valid measures. Far from being like the elephant confronting the blind sages, democracy is more like a ball of wax. (Inkeles et al. 1990, 5.)

Thus, limiting the definition of democracy to political characteristics will produce an accurate representation of democratization.

Having defined democracy, we now turn to its measurement. The question of whether to measure democracy as a dichotomy or in terms of gradations is the subject of much debate. Some argue that graded measures are less reliable and contain more measurement error than dichotomous measures (Alvarez et al. 1996, 31). However, recent empirical studies call this assumption into question and insist that dichotomous measures neglect advances in data collection that allow for more precise graded measures (Elkins 2000, 293; Bollen and Jackman 1989, 617).

Additionally, those who define democracy as contestation doubt the validity of graded measures, believing democracy to be an all-or-nothing matter (Alvarez et al. 1996, 21; Przeworski and Limongi 1997, 178). Bollen and Jackman write that this definition invites insensitivity to persisting authoritarianism or, in the case of democratization, developing liberalization (Bollen and Jackman 1989, 612). Furthermore, dichotomous measures are not sensitive to the continuous nature of democratization. In order to capture the incremental process that is characteristic of democratic transition, I use the Polity IV Index (Marshall and Jaggers 2005) to calculate democracy scores. This measure is based on a scale of one to ten, with ten indicating that a state is democratic.

Control Variables. Prior qualitative and quantitative studies of democratization have discovered numerous variables that have statistically significant effects on political liberalization. I thus include several economic, political, and cultural variables identified by previous studies as significant factors in democratization.

**GDP Per Capita (“GDP”)**. One of the most pervasive theories explaining the cause of democratization asserts that economic development, as indicated by GDP per capita and GNP, leads to democratization (Lipset and Seong 1993, 155-174; Bollen and Jackman 1985, 27-48; Huntington 1984, 199). Economic development is believed to cause democratization for three reasons. First, economic development produces a higher living standard. A better quality of life leads citizens to have a sense of well-being and also incorporates developments that are conducive to democracy, such as higher levels of adult literacy and secondary school attendance (Diamond et al. 1987, 10). In addition, economic development produces wealth dispersion, which, in turn, results in a wider diffusion of political power. The distribution of wealth and resources translates to a broader distribution of power and thus forces compromise among leaders and elites. Third, the equal dispersion of wealth eliminates the adversarial relationship between an impoverished majority and the wealthy ruling elite. The majority middle class is able to effectively rule the democratic society (Lipset and Seong 1993). As the effect of economic development on democratization has become conventional knowledge, I include a variable for the GDP per capita, calculated from the World Bank’s World Development Indicators. Missing values were supplemented with data from the International Monetary Fund and the United Nations Common Database.³

³ Both IMF and UN data for GDP per capita was correlated with the World Bank statistics at r>0.95.
Population (“Pop”). Conclusions regarding the role of population size in encouraging or discouraging democratic stability have been conflicting. However, smaller countries have generally been found to adapt to democracy better than larger countries, as grassroots democratic governance is more viable (Dahl and Tuft 1973, 2). Thus, I include a control measuring population, calculated from the World Bank’s World Development Indicators; where missing, values were supplemented using the U.S. Census Bureau’s International Data Base.

British Colony (“Britcol”). Within British colonies, the preparation for democratic self-governance was more extensive and sustained. (Lipset and Seong 1993, 159-160; Huntington 1984, 206; Diamond et al. 1987, 10). As British colonization has been shown to be an indicator of successful democratization, I include a dummy variable coded one for British former colonies. British colonies were coded using various datasets, including ACLP (1999) and Treisman (2000).

Ethnic Homogeneity (ELF). Gobblieg asserts that homogenous nations are more likely to become peaceable democracies than “states rent by harsh linguistic and cultural antagonisms” (Gobblieg 1994, 101). I control for ethno-linguistic fractionalization, measured as the probability that two randomly selected individuals in a population belong to the same ethnic group. This variable is time-invariant, with ethnic fractionalization based on measures from 1961; values were calculated by Philip Roeder. However, this is not seen as threat to the validity of the measure, as ethnic fractionalization displays tremendous time persistence (Alesina et. al 2003, 161). Moreover, the exogeneity of this measure is an advantage compared to some more recent measures, as it is more likely that latent rather than politicized diversity is being measured (Stoll 2007, 11).

Regime (“Parliamentary,” “Presidential,” and “Mixed”). Previous research has contested the advantages and disadvantages of parliamentary and presidential governments (Lijphart 1992; Weaver and Rockman 1993). Presidential democracies have been found to be inherently less stable than parliamentary systems (Linz and Valenzuela 1994; Mainwaring 1993). Since World War II, thirteen of the thirty-nine parliamentary democracies have collapsed, while ten of the thirteen presidential democracies have broken down. As institutional arrangements do clearly affect political stability, control variables are included to measure regime type. Institutional structure is operationalized as three dummy variables for presidential, mixed (president-parliamentary, premier-presidential, semi-presidential or assembly independent), and parliamentary regimes. This measure was culled from a variety of sources, primarily ACLP (1999), Stoll and Hicken (2007), and Golder (2005).

Protestantism (“Prot”). Protestant societies have been found to have greater prospects for democratization, as Protestant values have been shown to encourage capitalism and, with it, economic development and democratization (Huntington 1984, 199-207; Bollen 1979, 572-87). I thus include a control for Protestantism based on data compiled by La Porta et al. (1999). Missing values are supplemented using the ACLP dataset (1999). Due to the lack of time-series measures of Protestantism, this control is time-invariant; all data was collected in 1980. However, due to the relatively stable nature of states’ religious populations, this should not significantly bias results.

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4 Roeder’s measures of ELF were taken rather than the traditional Taylor and Hudson (1972) calculations because Roeder’s dataset includes a greater number of countries. Note that Roeder uses the same formula as Taylor and Hudson, and his calculations correlate to the originals at r=0.96.

5 La Porta et al. and ACLP data on Protestantism are highly correlated (r=0.87).
Missing Data

As a result of missing data, in the model where aggregate media freedom is the independent variable, 2900 out of 3955 cases are observed when employing listwise deletion. When print and broadcast media, for which several years of data are missing due to variations in Freedom House coding, are independent variables, after listwise deletion, an average of 1837 cases are included in analysis.

No cases were included in the dataset for which there was no information on either the independent or dependent variables. There was relatively little missing data on the media freedom variable, for which 113 cases of nearly 4000 were missing. A total of 581 cases were missing on the dependent variable. The countries for which there was missing data seemed to be slightly more developed than the general sample. If media is indeed an accurate indicator of democracy, the mean media freedom score for these countries was around 0.5 points higher than the mean of the aggregate sample, though this is still within one standard deviation of the mean for the sample. Most significantly, after 1989, Freedom House no longer measured media freedom separately for the print and broadcast media. Thus, for the years 1989 to 2004, data is missing on these disaggregated measures of media freedom.

A rather insignificant number of cases were missing for the controls British Colonization (zero), Protestantism (170), Population (forty-seven), GDP Per Capita (seventeen) and the institution variables (zero). Most missing data is the result of omissions in the ethno-linguistic fractionalization variable, which lacks data for 790 cases. These cases do not appear to vary substantively from the sample. The mean media freedom and democracy scores for the cases missing on the ELF variable are both within one standard deviation of the mean scores for the independent and dependent variables for the entire sample.

Honaker et al. write that employing listwise deletion is “known to be inefficient and often biased” (Honaker et al. 2007, 3). Alternatively, I chose to impute the values for the missing data. All variables used in the empirical analysis were included in the imputation model. Because the missing cases do not seem to vary significantly from the non-missing cases, the imputations should be relatively accurate. Using Amelia II: A Program for Missing Data by Honaker et al. (2007), estimates conditional on the observed data were used to impute the missing values.

Model Specifications

Four models are tested using the imputed data set: The Media Model, examining the relationship of aggregate media freedom and democratization; The Lag Media Model, including lag media freedom (t-1) as an independent variable so as to begin to look at the direction of causality; The Print Media Model, with print media freedom as the independent variable; and The Broadcast Media Model, testing the relationship of broadcast media freedom and democratization. The sample consists of 200 countries measured annually from 1980 to 2004. The countries in the sample are those included in either the Polity IV Index or Freedom of Press dataset; in other

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6 Listwise deletion is the process of eliminating a case from the analysis if data on any variable is missing.
7 The process of multiple imputation involves three steps. First, a statistical model is used to generate predictions for the distribution of each variable in the dataset with missing values, based on other information in the dataset. Subsequently, multiple imputations for each missing value are created. The result is five datasets, each of which had the same values for observed data and different imputations for the missing data (see Glasgow and Weber 2005, 593). In each of these datasets, there are 3955 observations. These estimates are then combined using Clarify: Software for Interpreting and Presenting Statistical Results, which accounts for variation within each dataset as well as variation across imputed datasets (King, Tomz, Wittenbert 2003).
words, all independent countries for which there was either data on the independent or dependent variable. Polity evaluates all countries in the international system, as defined in the Correlates of War Project, that had achieved independence and a population greater than 500,000 in 2002. Freedom House data includes all United Nations member countries as well as Hong Kong.

In panel and time-series cross-sectional data structures, OLS assumptions of homoskedasticity and no autocorrelation are often violated.\(^8\) Not surprisingly, when the non-imputed dataset was used to run The Media Model, The Print Media Model, and The Broadcast Media Model, a Cook-Weiberg test rejected the null hypothesis of homoskedasticity in all cases. Moreover, regressions of the OLS residuals on their lags revealed autocorrelation.\(^9\) In order to correct for heteroskedasticity and autocorrelation, the variables democracy, media (aggregate, print, and broadcast), GDP per capita, and population are measured in terms of changes in relation to the previous time period. When the same three models are run with variables that are operationalized in terms of changes, a Cook-Weisberg test fails to reject the null hypothesis of homoskedasticity. Additionally, regressions of the OLS residuals on their lags demonstrate that \(\varepsilon_{lag}\) is not significant at the \(p<0.01\) level, suggesting the absence of serial correlation.\(^10\)

Having satisfied all OLS assumptions, I use OLS to estimate the following equation:

\[
\Delta \text{Democracy} = \beta_0 + \beta_2 \Delta \text{Media} + [\beta_3 \Delta \text{LagMedia}] + \beta_4 \Delta \text{GPD} + \beta_5 \Delta \text{Pop} + \beta_6 \text{Britcol} + \beta_7 \text{ELF} + \beta_8 \text{Presidential} + \beta_9 \text{Mixed} + \beta_{10} \text{Parliamentary} + \beta_{11} \text{Prot} + \varepsilon
\]

where:

- \(\Delta \text{Democracy}\) = the change in a country’s democracy score compared with its democracy score in the previous year \(t-1\).
- \(\Delta \text{Media}\) = the change in a country’s media score (aggregate, print, or broadcast) compared with its media freedom score in the previous time period \(t-1\).
- \(\Delta \text{LagMedia}\) = the change in a country’s media score (aggregate) compared with its media freedom score in the previous time period \(t-2\). This variable is included in one model to test whether media freedom preceded democratization.
- \(\Delta \text{GPD}\) = The change in a country’s GDP compared with its GDP in the previous year \(t-1\).
- \(\Delta \text{Pop}\) = The change in a country’s population compared with its population in the previous year \(t-1\).
- \(\text{Britcol}\) = 1 if the country is a former British colony; zero otherwise.
- \(\text{ELF}\) = Ethno-linguistic fractionalization, as measured in 1961.
- \(\text{Presidential}\) = 1 if the country is a presidential democracy; zero otherwise.
- \(\text{Mixed}\) = 1 if the country is a mixed democracy; zero otherwise.
- \(\text{Parliamentary}\) = 1 if the country is a parliamentary democracy; zero otherwise.
- \(\text{Protestant}\) = The percent of the Protestant population in a country.

\(^8\) An additional concern was unobserved unit-specific effects across countries. This concern was substantiated when a fixed effects model rejected the null hypothesis of no unit-specific effects. Had there been unit-specific effects, a random effects model would have been more appropriate considering that time-invariant variables are dropped from the fixed effects model. However, when variables are operationalized in terms of changes rather than levels, a fixed effects model fails to reject the null hypothesis of no unit-specific effects. Thus, neither a fixed nor a random effects model is necessary.

\(^9\) All models showed lag to be significant at the \(p<0.01\) level.

\(^10\) For the model in which the change in aggregate media freedom is the independent variable, \(p=0.03\) for \(\varepsilon_{lag}\). In an attempt to further eliminate autocorrelation, I included a lagged dependent variable in this model. However, when I did so, heteroskedasticity reappeared. I thus chose to accept the possibility of autocorrelation in return for the elimination of heteroskedasticity. For models in which print and broadcast media freedom are independent variables, \(\varepsilon_{lag}\) is far less significant, with \(p=0.4\) for the print media model, and \(p=0.47\) for the broadcast media model.
Table 1 presents the results of the four models testing the effects of media freedom on democratization.

In *The Media Model*, aggregate media freedom is the independent variable. The results from this regression support the hypothesis that the media is positively related to democratization, as results are significant at the $p<0.01$ level; when media freedom increases, so do levels of democracy.

The second model, *The Lag Media Model*, includes a lag of the change in aggregate media freedom. Once again, both the lagged and non-lagged media variables are positively and significantly related to democratization at the $p<0.05$ levels. While this does not prove causality, it certainly provides evidence that media opening preceded the process of democratization.

---

**Table 1: Regression Analysis with Multiple Imputation**

<table>
<thead>
<tr>
<th></th>
<th>The Media Model</th>
<th>The Lag Media Model</th>
<th>The Print Media Model</th>
<th>The Broadcast Media Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change Media</td>
<td>0.4***</td>
<td>0.39***</td>
<td>0.14**</td>
<td>0.22***</td>
</tr>
<tr>
<td></td>
<td>(0.9)</td>
<td>(0.9)</td>
<td>(0.06)</td>
<td>(0.07)</td>
</tr>
<tr>
<td>Change Lag Media</td>
<td></td>
<td>0.21**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.08)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change GDP</td>
<td>9.20e-06</td>
<td>4.70e-06</td>
<td>0.00002</td>
<td>0.00002**</td>
</tr>
<tr>
<td></td>
<td>(8.04e-06)</td>
<td>(9.01e-06)</td>
<td>(6.97e-06)</td>
<td>(7.20e-06)</td>
</tr>
<tr>
<td>Change Population</td>
<td>-1.47e-10</td>
<td>-1.63e-10</td>
<td>-4.74e-10</td>
<td>-4.42e-10</td>
</tr>
<tr>
<td></td>
<td>(9.01e-10)</td>
<td>(9.07e-10)</td>
<td>(8.74e-10)</td>
<td>(8.72e-10)</td>
</tr>
<tr>
<td>British Colonization</td>
<td>-0.003</td>
<td>0.002</td>
<td>0.003</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>ELF</td>
<td>-0.004</td>
<td>-0.004</td>
<td>0.01</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>(0.1)</td>
<td>(0.1)</td>
<td>(0.1)</td>
<td>(0.1)</td>
</tr>
<tr>
<td>Parliamentary</td>
<td>0.11*</td>
<td>0.1</td>
<td>0.13***</td>
<td>0.13**</td>
</tr>
<tr>
<td></td>
<td>(0.1)</td>
<td>(0.06)</td>
<td>(0.06)</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Mixed</td>
<td>0.3***</td>
<td>0.26***</td>
<td>0.28***</td>
<td>0.28***</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td>(0.09)</td>
<td>(0.09)</td>
<td>(0.09)</td>
</tr>
<tr>
<td>Presidential</td>
<td>0.19**</td>
<td>0.18**</td>
<td>0.2***</td>
<td>0.2***</td>
</tr>
<tr>
<td></td>
<td>(0.07)</td>
<td>(0.07)</td>
<td>(0.07)</td>
<td>(0.07)</td>
</tr>
<tr>
<td>Protestant</td>
<td>-0.001</td>
<td>-0.001</td>
<td>-0.001</td>
<td>-0.001</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.001)</td>
<td>(0.001)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.01</td>
<td>-0.01</td>
<td>-0.03</td>
<td>-0.03</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
<td>(0.06)</td>
<td>(0.06)</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Observations</td>
<td>3955</td>
<td>3721</td>
<td>3955</td>
<td>3955</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.02</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>MSE$^{11}$</td>
<td>1.38</td>
<td>1.38</td>
<td>1.39</td>
<td>1.39</td>
</tr>
</tbody>
</table>

* $p<0.10$; ** $p<0.05$; *** $p<0.01$ (two tailed)

Standard Errors given in parentheses.

**Results**

Clarify does not provide goodness of fit measures when combining regression estimates from multiply imputed datasets. In order to generate $R^2$ and root MSE values, I ran identical regressions in each of the five multiply imputed datasets and averaged the results of these measures.

---

11 Clarify does not provide goodness of fit measures when combining regression estimates from multiply imputed datasets. In order to generate $R^2$ and root MSE values, I ran identical regressions in each of the five multiply imputed datasets and averaged the results of these measures.
The third and fourth models examine the relationship of print and broadcast media freedom and democratization. Once again, results support the hypothesis that print and broadcast media freedom are positively and significantly related to democratization.

The institution variables for mixed and presidential regimes were the only controls that were found to be significantly related to democratization across models; both coefficients were positive. This finding is not surprising, as there is a degree of endogeneity between regime type and democracy—in order to be classified as parliamentary, mixed, or presidential, a country must first be considered democratic.

Results from *The Print Media Model* and *The Broadcast Media Model* show parliamentary regimes to be positively related to democratization at the p<0.05 level. In addition, GDP per capita was positively and significantly related to democratization in *The Broadcast Media Model*.

**Discussion: Substantive Significance of the Media Models**

Which of the three measures of media freedom most profoundly effects democratization? An understanding of the magnitude of the effect of each medium may point to the intermediary causes of political liberalization. As asserted in the discussion of causal mechanisms, the print media is related to the development of civil society, which, in turn, encourages democratization. In contrast, the broadcast media is more relevant in drawing attention to alternative political actors. Or, rather, is it the aggregate effect of the media that most strongly effects democratic development? In this section, I turn to the substantive significance of the relationships of each measure of media freedom and democratization.

One way of defining a reasonable change in a quantitative variable is the movement across its inter-quartile range (the distance between the 75th and 25th percentile, or the third and first quartiles). For aggregate media freedom, this is a change of two points, roughly akin to a country such as Afghanistan in the 1990s increasing its media freedom to that of a country such as Chile in the 1990s. For print media freedom, the inter-quartile range is a change of 1.45 points, similar to a country such as North Korea in the 1980s increasing the freedom of its print media until it resembles that of a country such as Ireland in the 1990s. Finally, for broadcast media, this is a change of 1.3 points, akin to a country like East Germany in the 1980s improving broadcast media freedom until similar to Estonia in the early 1990s. I multiply the inter-quartile ranges of these variables by their coefficients to determine the effect that a reasonable change in each form of media can be expected to have on democratization.

Clearly, aggregate media has the strongest effect on democratization, as a reasonable increase in media freedom is predicted to cause a 0.8 increase in democracy levels. Democratization is an ordinal level measure and, hence, a 0.8-point increase cannot be directly observed. To give some idea of this effect, a one-point increase in democracy scores is akin to the transition that took place in Mexico from the early-1980s to the early-1990s. In the 1980s, Mexico was a one party state, firmly rooted in the authoritarian model. In the early 1990s, opposition candidates were becoming prominent political players and a civil society of elites was rapidly discovering its power to advocate reforms in the political realm.
It appears that the broadcast media’s effect on democratization is stronger than that of the print media. This lends validity to *The Opposition Function*. However, the role of the print media is still significant, substantiating *The Civil Society Function*. The disproportionate discrepancy in the magnitude of the effect of the aggregate media as compared to the individual effects of the print and broadcast media suggests that the media most profoundly effects democratization when *The Civil Society* and *Opposition* functions interact.

### Alternative Models and Consistency of Results

Though initial findings using multiply imputed datasets do substantiate the hypothesis that media freedom is related to democratization, it is disconcerting to note that, when values were not multiply imputed, though the relationship between media freedom and democratization was still positive, this finding was not statistically significant (see Table 2). The obvious explanation for this is that by increasing the sample size nearly 1,000 cases, we also made it more likely that

**TABLE 2: Alternative Models**

<table>
<thead>
<tr>
<th>Variables as changes, non-imputed data</th>
<th>Variables as levels, non-imputed data</th>
<th>Missing cases only, imputed data set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media</td>
<td>0.02</td>
<td>2.07***</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
<td>(0.2)</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>0.0001***</td>
<td>0.00002</td>
</tr>
<tr>
<td></td>
<td>(0.0003)</td>
<td>(0.0001)</td>
</tr>
<tr>
<td>Population</td>
<td>-5.33E-09</td>
<td>-1.79E-12</td>
</tr>
<tr>
<td></td>
<td>(5.56E-09)</td>
<td>(2.72E-10)</td>
</tr>
<tr>
<td>British Colonization</td>
<td>0.04**</td>
<td>0.23</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.17)</td>
</tr>
<tr>
<td>ELF</td>
<td>-0.02</td>
<td>-0.1</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
<td>(0.29)</td>
</tr>
<tr>
<td>Parliamentary</td>
<td>0.06</td>
<td>4.98***</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.39)</td>
</tr>
<tr>
<td>Mixed</td>
<td>0.14**</td>
<td>4.41***</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
<td>(0.36)</td>
</tr>
<tr>
<td>Presidential</td>
<td>0.13***</td>
<td>4.2***</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.34)</td>
</tr>
<tr>
<td>Protestant</td>
<td>-0.002*</td>
<td>0.01**</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.004)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.06</td>
<td>-1.93***</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.26)</td>
</tr>
<tr>
<td>Observations</td>
<td>2900</td>
<td>3067</td>
</tr>
<tr>
<td></td>
<td>1049</td>
<td></td>
</tr>
</tbody>
</table>

*p<0.10; **p<0.05; ***p<0.01 (two tailed)
Standard Errors given in parentheses.

results would be significant. Additionally, in the original sample, when cases for which there was no change in democracy or media freedom from one year to the next were omitted only
twenty-six cases remained. This sample is clearly not large enough to generate accurate or significant results. By imputing the data, not only did we increase the sample size, but we also increased the sensitivity of the scales on which media freedom and democratization are measured. After omitting cases for which there was zero change from one year to the next on the independent and dependent variables in the imputed data sets, there were over one hundred observations. Notably, the results from this regression were nearly identical to those generated by *The Media Model* in which all cases were included. The fact that the variables hardly varied in the original data set explains the lack of significant findings.

Additional models were generated in order to explore the reliability of the results (see Table 2). First, I ran a model using the non-imputed data and measured variables as levels rather than changes. To satisfy those OLS assumptions that were found to be violated, I estimate Newey-West standard errors in place of the standard OLS estimates, as they are robust to both autocorrelation and heteroskedasticity. Media freedom was found to be positively and significantly related to democratization, though the magnitude of this relationship was found to be greater than in the original model. This finding confirms the hypothesis that the absence of significant findings found in the non-imputed data was due to a lack of variation in the variables after they were measured in terms of changes from one year to the next.

Second, I examined the cases that were multiply imputed. A model was generated using only those cases that were originally missing. Results once again showed media freedom to be positively and significantly related to democratization. This finding dispels the theory that the results generated by *The Media Model* were biased because the missing cases diverged substantively from the non-missing cases.

**Conclusion**

In this paper, I have explored the causal relationship between media freedom and democratization, a topic that has been neglected in past literature. This relationship was examined both theoretically, making references to the case of Mexico in the 1980s and 1990s, and empirically.

In the statistical analysis, four independent variables were identified: an aggregate measure of media freedom, a lagged form of this variable, print media freedom, and broadcast media freedom. The dataset includes 200 countries measured annually from 1980 to 2004. Models based on multiply imputed datasets demonstrated the positive and significant relationship between all measures of media freedom and democratization.

Additionally, this paper asserted and indirectly tested two causal mechanisms, *The Civil Society Function* and *The Opposition Function*. *The Civil Society Function* states that the media’s greatest influence on democratization is its ability to solidify a community of elites, thus contributing to the formation of a civil society that can, in turn, pressure political reforms. As this causal mechanism is carried out more extensively in the print media, a model incorporating print media freedom as the independent variable indirectly tests *The Civil Society Function*. In accordance with *The Opposition Function*, which is facilitated by the broadcast media, the media’s primary role is to highlight opposition candidates, providing the mass public with political alternatives. Comparing the substantive significance of results from *The Print Media*

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12 This discussion is limited to models with aggregate media freedom as the independent variable. However, models were run for cases in which print media freedom, broadcast media freedom, and lag media freedom were independent variables and results were similar.
Model and The Broadcast Media Model, it initially appears as though the magnitude of the effect of the broadcast media and, thus, The Opposition Function, is stronger than that of the print media and The Civil Society Function. However, the effect of aggregate media freedom on democratization is disproportionately greater than that of the disaggregated measures, suggesting that political liberalization is most furthered through the interaction of these mediums; in other words, the effect of the whole seems to be greater than the sum of its parts.

Due to the difficulty in operationalizing the concept of civil society, this paper has only tested the two causal mechanisms through the proxies of the print and broadcast media. It would, however, be advisable to quantitatively examine the direct effects of The Civil Society Function and The Opposition Function on the process of political liberalization. Additionally, a great deal of data was missing for both the print and broadcast media variables. Future research should seek more complete data on these variables in order to better examine the more nuanced effects of media freedom on democratization.
References


Data Appendix


