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Cover Page Footnote

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The Language of Political Genres: Inaugural and State Speeches of New York City Mayors and US Presidents

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Abstract

This study provides empirical evidence for the predictions of genre theorists concerning two genres of political speech: inaugural addresses and state addresses (state of the union and state of the city speeches). Using a combination of computer-aided textual analysis and regression analysis, we analyzed 132 speeches from US presidents and NYC mayors to see whether nine dependent variables varied according to genre. The results of our regressions indicated significant differences between the genres: inaugural addresses are more inspirational and unifying than state speeches and state speeches use more policy-related language and language concerned with the past than inaugurals. This paper was presented at the NYSCA Conference in October, 2017.

Key words: inaugural speeches, mayors, presidents, political speech, state speeches

Introduction

In political speech-making, as in literature and the arts, a genre is a kind or type. Common genres of political speech include inaugural addresses, farewell addresses, campaign speeches, concession speeches, war rhetoric, apologia, eulogies, and state speeches (i.e. state of the union, state of the state, and state of the city addresses). An important project for researchers in political communication and rhetorical studies has been to read whole sets of speeches within the same genre to discover what common content, style, and situations they may share. The study of presidential rhetoric has to a large extent been organized around the concept of genre. Scholars like Karlyn Kohrs Campbell and Kathleen Hall Jamieson (2008) have been at the forefront of the movement to discover the norms and describe the political function of various genres of presidential rhetoric. This study builds on the work of Campbell, Jamieson, and others by using computer-aided textual analysis to test their insights into two genres of political speech: inaugural addresses and state speeches (including state of the union and state of the city speeches). With automated textual analysis, we tested for differences between the language used in inaugural addresses and state speeches of every U.S. president from Eisenhower to Obama, and every Mayor of New York City from Wagner to de Blasio. Our purpose was to discover whether claims about inaugural addresses and state addresses made by leading scholars in studies of single genres stand up to quantitative, comparative analysis. Our results indicate

that, in addition to being a tool for rhetorical criticism and textual illumination, genre can also be observed empirically in the language of political texts.

Genre Studies

Genre has been studied across a variety of disciplines, including literature, linguistics, political communication, and rhetoric. One of the earliest schemes of generic classification was offered by Aristotle almost 2500 years ago, who divided political speech into deliberative (speeches made in deliberative bodies), forensic (speeches made in courts), and epideictic (ceremonial speeches) genres. Innumerable schemes for classifying speech and literature have been offered since. Although genres can be quite enduring, they are not immutable. They arise from particular political, social, and cultural circumstances. For instance, state speeches, a widely studied genre of political speech today, did not exist as such 300 years ago. Neither did the musical categories of jazz and rock. The study of genres thus yields insight into political and cultural structures. Russian literary critic Mikhail Bakhtin (1986) argued that speech genres are the “drive belts from the history of society to the history of language” (p. 65). Northrup Frye’s 1957 *Anatomy of Criticism* set the stage for subsequent work on genre in literary studies, but the fullest recent review of this literature is *Genre: An Introduction to History, Theory, Research and Pedagogy* (Bawarshi & Reiff, 2010).

Much of the leading work in the field of rhetorical studies has engaged contemporary genres of political speech, like presidential inaugurals. Karlyn Kohrs Campbell and Kathleen Hall Jamieson set the tone for many future studies with their introduction to the 1978 volume *Form and Genre: Shaping Rhetorical Action*. They define genres as “groups of discourses that share substantive, stylistic, and situational characteristics” (p. 20). Campbell and Jamieson (1978) argue that what is unique about a genre is that it is a group of acts that are “unified by a constellation of forms” that recur together and are “bound together by an internal dynamic” (p. 20-21). Similarly, Hart defines genre as “a class of messages having important structural and content similarities, which, as a class, create special expectations in listeners” (Hart, 1990, p. 183).

Subsequent work has attempted to define the characteristics of individual genres. Some of the genres that have been studied are presidential inaugurals (Campbell & Jamieson, 1986; Lucas, 1986), apologia (Blair, 1984; Burkholder, 1990; Ware & Linkugel, 1973), eulogies (Berens, 1977; Carpenter & Selzer, 1971; Mackin, 1991; Mister, 1986), and third-party concession speeches of presidential candidates (Neville-Shepard, 2014). Other work explores how our understanding of some speeches is enhanced by understanding their place in a generic tradition (see Campbell, 1992; Daughton, 1993; Frank, 2001; Gronbeck, 1986), documents the histories of individual genres (Jamieson, 1975), examines how genres come into being (Lucas, 1986), and further theorizes about the nature of genre (Jamieson & Campbell, 1982; Miller, 1984). The most prominent book-length treatment of genres of political speech focuses on presidential rhetoric (Campbell & Jamieson, 2008). Work on genres of political speech in the field of political communication has developed along much the same lines and has been carried out by some of the same researchers and scholars. While some of the work has been purely qualitative (Corcoran, 1994), political scientists have been more prone to use quantitative approaches (Sigelman, 1996; Whissell & Sigelman, 2001). Although genre studies are well-established in the study of political communication, research in this tradition has tailed off in recent years. We hope to revitalize this important tradition of research and analysis.

This study adds a rigorous comparative perspective to the previous body of work. Although existing scholarship discusses the distinctive characteristics of a number of genres of

presidential rhetoric, it does not systematically or quantitatively compare genres. For instance, Whissell and Sigelman (2001) found that “power language (language that is linguistically simple, emotionally evocative, highly imaged, and rich in references to American values) is an important descriptor of inaugural addresses” (p. 255). They measure changes in the level of “power language” over time, but they do not compare the level of power language in presidential inaugurals to the level of power language in state of the union addresses, or to any other genre of speech or baseline. Therefore, we do not know if presidential inaugurals have a particularly high level of power language in comparison to other types of speech, and consequently if a high level of power language is a characteristic that distinguishes inaugurals from other genres of speech, or if it is a general characteristic of many forms of political speech. Of all the work on genre, only Douglas Biber’s work in linguistics, *Variation across Speech and Writing* (1988), looks comparatively at the presence of a set of characteristics across a variety of genres, although his categories are quite broad, consisting of “genres” like scientific texts, fiction, and face-to-face conversation. A systematic, comparative measurement of the degree to which the same characteristics are present across different types of political speech has not been undertaken.

Without empirical evidence of systematic differences between different kinds of political speech, it is possible to doubt that genre exists anywhere but in the minds of critics. Indeed, in the literary study of genre, some critics take the position that genre is nothing more than a “critical lens” and defend the view that the critic can apply any generic label to any text so long as it yields new insight (Rosmarin, 1986). Previously, Campbell and Jamieson (2008) have responded to questions regarding the “truth” of generic categorization and criticism by arguing that “genres do not exist in any fixed and final sense; they are only critics’ tools, to be judged by the illumination they provide” (p. 139). In this study we undertake a comparative analysis of inaugural addresses and state speeches that seeks to prove that different genres of political speech have systematic differences that are empirically observable.

Inaugural and State Speeches

We tested expected differences between two of the most important and well-studied genres of speech in US political discourse: inaugural addresses and state speeches. As discursive rituals, presidential inaugural and state addresses “teach American culture to...[their] listeners” and “remind the American people what they *ought* to know or believe” (Beasley, 2004, p. 10). Inaugural and state speeches were also chosen because of their frequency. Beginning with the administration of George Washington in 1789, every US President has delivered an inaugural address after taking the Oath of Office. State of the Union (SOTU) speeches have generally been delivered once a year since the early days of the republic. This message took the form of a speech during the administrations of George Washington and John Adams, and then not again until the administration of Woodrow Wilson. From 1801 to 1912, and occasionally afterwards, the SOTU message was delivered in written form (Peters, 2015).

Presidents, however, are not the only political executives in American politics to deliver inaugural and state speeches. Other political executives, such as mayors and governors, also give these speeches. Chief executive officers, presidents, governors, and mayors have similar executive purposes and roles (Herzik, 1985). Finding that the same patterns that occur in presidential inaugurals also occur in mayoral inaugurals would provide empirical evidence for one of the most basic assumptions of all genre theory: that the rules and characteristics of a genre should hold true for all speeches within that genre. Although it

would be interesting to look at speeches from a broader set of mayors, we decided to concentrate on NYC mayors because a historically deep set of speeches was available to us.

In addition to comparatively testing claims about genres of political speech, this study adds to the small, interdisciplinary body of literature on mayoral rhetoric in general. This body of work includes studies of crime rhetoric in mayoral speech (Marion & Oliver, 2013), the rhetoric of black mayors (Perry, 2011), mayoral debate in Taipei (Kuo, 2001), and the rhetoric of Seattle's Mayor Landes (Lewis, 2011), Chicago's Mayor Daley (Philipsen, 1986), and New York's Mayor Giuliani (Pennebaker & Lay, 2002; Griffin-Padgett & Allison, 2010; Pepe, 2007). As one of the most visible and important urban leaders in the world, the mayor of New York City is an especially worthy subject of scholarship.

Characteristics of Inaugural Addresses

Academic scholarship depicts presidential inaugurals as speeches that set forth the vision and values of the speaker in a high oratorical style but tend to not dwell on particular policies (Campbell & Jamieson, 2008). Inaugurals might be expected to share some of the characteristics of "epideictic" speeches, which, as Aristotle defined nearly two-and-a-half millennia ago, are speeches delivered on ceremonial occasions, that often focus on the present, reinforce communal values with praise and blame, and that uses a literary or formal style (*Rhetoric*, Book I, Chapter 3). Campbell and Jamieson assert that presidential inaugural addresses are epideictic speeches, and that, as a genre, they "link the past and future in present contemplation, affirm or praise the shared principles that will guide the incoming administration, ask the audience to 'gaze upon' traditional values, employ elegant, literary language, and rely on 'heightening of effect' by amplification and reaffirmation of what is already known and believed" (p. 30). Although it is difficult to operationalize all of Campbell and Jamieson's descriptions of presidential inaugural addresses—such as their ability to "transcend the historical present" (p. 46)—there are predictions that can be tested by computer-aided textual analysis programs like Linguistic Inquiry and Word Count (LIWC) and DICTION 7.0:

H1: Inaugural addresses use more praise language than state speeches.

H2: Inaugural addresses use more inspirational language than state speeches.

Since they follow the divisive rhetoric and partisan attacks of an election campaign, inaugural addresses are important moments for US presidents to remind the American people that they are still one unified people. Therefore, the inaugural address "unifies the audience by reconstituting its members as 'the people' who can witness and ratify the ceremony" (Campbell & Jamieson, 1986, p. 203). An inauguration invites citizens to "perform their role as a unified people" by participating in the "ritual reenactment of peoplehood," even if they only participate by watching the event or reading the speech from their homes (Beasley, 2004, p. 10). To unify the audience, inaugural addresses often "promote certain basic understandings of American political community that transcend their own personal agendas and partisan views" (Beasley, p. 10), "rehearse national values," and lay out political principles that will guide and inform their administration (Campbell & Jamieson, 2008, p. 12). Since the inauguration ceremony requires an executive leader to unify a divided citizenry and transcend partisanship following an election, we expected that inaugural addresses would use more unifying language than state speeches.

H3: Inaugural addresses use more unifying language than state speeches.

The inaugural address is also an “important ceremonial event” in U.S. civil religion (Bellah, 1967). In an inaugural address, the president assumes the role of national priest by praying for the nation and speaking for the nation before God (Hart, 1977; Hart & Pauley, 2005). Traditionally, presidents’ inaugural addresses publicly “place[d] the country in the hands of a higher power” to demonstrate their humility and “overcome the fear that the incoming president [was] an incipient despot” (Campbell & Jamieson, 1978, p. 23). Toolin’s (1983) content analysis suggests that presidential inaugurals systematically employ civil religious language and scholars generally accept that presidential inaugural addresses are one of the premiere sites for the display of American civil religion (Daughton, 1993; Frank, 2001). Given the prominent role of civil religion in presidential inaugurals, we predicted that inaugural addresses would have more religious language than state speeches.

H4: Inaugural addresses use more religious language than state speeches.

Characteristics of State Speeches

State of the Union messages, previously called annual messages, began as the fulfillment of the Constitution’s direction that the president “shall from time to time give to the Congress information on the state of the Union and recommend to their consideration such measures as he shall judge necessary and expedient” (Article 2, Section 3). Campbell and Jamieson (2008) argue that by entrusting the president with the responsibility of reporting on the state of the Union, they offered the presidents “the role of national historian, giving them the opportunity to reconstruct the past in order to forge the future” (p. 137). To put it another way, presidents frequently use the State of the Union as an opportunity to recount the accomplishments of their administrations in a way that prepares the ground for future initiatives. Thus, we expected that state speeches would focus more on the past than inaugural addresses.

H5: State speeches use more language concerned with the past than inaugural addresses.

The State of the Union address presents an opportunity for an executive leader to advocate for particular policies. SOTU addresses recommend and justify legislative initiatives as solutions to persistent national problems. Policy recommendations are such an important part of SOTU addresses that Campbell and Jamieson (2008) argue, “Presidents have read the constitutional provision as an opportunity to link their messages to proposed legislation, almost as if they had rewritten the Constitution to read that the president ‘shall, from time to time, give to the Congress information on the state of the Union to enable the President to recommend for their consideration such measures as are deemed necessary and expedient’” (p. 150). The state address is the occasion when the “president has the greatest opportunity to exercise legislative leadership” (Campbell & Jamieson, p. 164). As with most deliberative, policy-making discourse, these messages generally use a problem-solution structure, which assures citizens that their national problems will be solved (Campbell & Jamison, p. 163). Since state speeches focus on assessing information and making policy recommendations, we predicted that the policy discourse of state speeches would have more language related to policy.

H6: State speeches use more policy language than inaugural addresses.

Methods

Speech sample

Our sample included 132 speeches given by US presidents and NYC mayors between the years of 1953 and 2014. Our texts consisted of 16 presidential inaugurals, 62 SOTU addresses, 16 inaugurals of NYC mayors, and 38 state of the city addresses of NYC mayors. Our texts included every presidential inaugural ($N = 16$) and every mayoral inaugural ($N = 16$) that has been delivered since 1953. Our sample of SOTU addresses ($N = 62$) include every verbal address delivered orally by the president between 1954 and 2014 that substantively played the role of the SOTU.¹ Our sample also included every SOTC address ($N = 38$) given by a NYC mayor since 1954 that could be obtained.² The presidential speech texts were collected from the American Presidency Project website (Peters & Woolley, 2015). The speeches of NYC mayors were collected from the nyc.gov website, *The New York Times*, the City Hall Library of NYC, and the Newman Library at Baruch College. Information on the speakers, dates, and frequencies of the texts are provided in Table 1.

Dependent Variables

Each speech was analyzed using two computer textual analysis programs: DICTION 7.0 and Linguistic Inquiry and Word Count (LIWC). We used both programs so that we could analyze the texts according to a wider variety of variables. DICTION 7.0 is a dictionary-based textual analysis program that searches for about 10,000 words to measure 35 variables such as “optimism,” “numerical terms,” and “past tense” terms. The program counts the number of words in each text that match words in its dictionaries for each variable. For instance, for the *inspiration* variable, DICTION counts the number of words in each text that match words in its *inspiration* dictionary. And for the *numeric terms* linguistic variable, DICTION counts the number of numbers and number-related words in a text. Since word counts for a specific variable can vary according to the length of the text, DICTION also provides standardized scores by counting the number of dictionary words that occur in each 500-word segment of the text and then averaging the results. This approach allows texts of any size or length to be meaningfully compared. Therefore, the final output from DICTION was a standardized (averaged) score for each linguistic variable for each speech text. We then used these standardized scores for our statistical analysis.

Diction 7.0 also provides norms for each linguistic variable that were constructed from approximately 50,000 samples of discourse including speeches, poetry, newspaper editorials, business reports, scientific documents, television scripts, and telephone conversations (Hart & Carroll, 2012; Hart & Lind, 2013;). The norms represent the average scores for the variables in a wide sampling of common language, providing a sense for how often they are usually used in public discourse and allowing researchers to also compare texts to a standard baseline. We did not use the norms in our analysis because we were comparing the scores of inaugural addresses to the scores of state speeches, rather than comparing scores to general norms in public discourse—but we provide the norms below to help with interpreting the results. Since the program’s inception, scholars have used DICTION to analyze presidential discourse (Hart, 1984). For a fuller background and methodological justification for using DICTION, see Waisanen (2011). For answers to common theoretical questions about the program, see Hart (2001).

Developed from the field of psychology, the LIWC program codes words according to some 80 linguistic dimensions including “function words,” impersonal pronouns, or causal words (Pennebaker, Francis, & Booth, 2001). Like DICTION, it also has a number of dictionary-based content categories such as “money” and “religion.” The LIWC dictionary searches for some 4,500 words. LIWC “captures, on average, over 86 percent of the words people use in writing and speech” (Pennebaker, Chung, et al., 2007, p. 10). Unlike DICTION, LIWC counts

the number of words in each text that fit into the LIWC dictionary-based categories and then converts those raw counts into a percentage of total words to produce a final output. The percentage approach also allows for meaningful comparisons of texts of any length, but scores will always be between 0 and 100 and low scores are more prevalent in LIWC variables than in DICTION variables. Therefore, the final output for DICTION and LIWC variables meant something slightly different. The output for the DICTION variables represented standardized (averaged) scores of the words in each dictionary category for each text, and the output for the LIWC variables represented the percentage of words in each speech text that fell into the dictionary category for each variable. We then used these final outputs for our statistical analysis. In our analysis, we never compared DICTION variables to LIWC variables. Instead, we just compared the DICTION variables for inaugural and state speeches to each other and we compared the LIWC variables for the inaugural and state speeches to each other.

Norms are also available for LIWC variables, which we report below. LIWC has been applied to political discourse in a number of studies. Gunsch et al. (2000) use it to study political ads. Slatcher et al., (2007) employ LIWC to study the language of presidential candidates. Pennebaker and Lay (2002) have used it to study the language of New York City mayor Rudolph Giuliani. For an analysis of the strength and weaknesses of the use of DICTION, LIWC, and other similar programs in rhetorical criticism, see Hoffman and Waisanen (2015) and Grimmer and Stewart (2013).

Although DICTION analyzes texts according to 35 variables and LIWC analyzes texts with 68 variables, we only tested variables that were most relevant to the literature on inaugural and state addresses and our related predictions. By comparing the definitions of each linguistic variable analyzed by the DICTION and LIWC programs to our predictions about inaugural and state speeches, we chose the variables that seemed to most closely measure the observations previously identified by scholars as characteristics of these speech genres. The definitions, descriptions, and norm scores for the following variables come from the DICTION and LIWC instruction manuals (Hart & Carroll, 2012; Pennebaker, et al., 2007). The means, ranges, and standard deviations for each variable are included in Table 2.

Based on our literature review, we predicted that the language of inaugural addresses would use more language that is expressive of praise (H1), inspirational (H2), unifying (H3), and religious (H4) than state addresses. We predicted that state speeches would have more language concerned with the past (H5) and policy (H6) than inaugurals. The following paragraphs describe how each of these hypotheses were tested using the variable measured by DICTION and LIWC.

Language of praise (H1) was measured by DICTION's praise variable. DICTION's *praise* variable refers to affirmations of some person, group, or abstract entity. It counts words identifying positive adjectives describing social qualities (dear, delightful, witty), physical qualities (mighty, handsome, beautiful), intellectual qualities (shrewd, bright, vigilant, reasonable), entrepreneurial qualities (successful, conscientious, renowned), and moral qualities (faithful, good, noble). DICTION's norm score for praise is 6.18 ($SD = 3.41$).

Inspirational language (H2) was measured using DICTION's *inspiration* variable. This variable represents a count of words that refer to virtues deserving of universal respect, including desirable moral qualities (faith, honesty, self-sacrifice, virtue), attractive personal qualities (courage, dedication, wisdom, mercy), and social and political ideals (patriotism, success, education, justice). DICTION's norm score for inspiration is 6.34 ($SD = 4.78$).

Unifying language (H3) was measured with DICTION's leveling variable. DICTION's *leveling* variable counts words that are used to "ignore individual differences" and "build a sense of completeness and assurance." This includes totalizing terms (everybody, anyone, each, fully), adverbs of permanence (always, completely, inevitably, consistently), and resolute adjectives (unconditional, consummate, absolute, open-and-shut). DICTION's norm score for leveling is 8.89 ($SD = 3.87$).

Religious language (H4) was measured by LIWC's religion variable. LIWC's *religion* variable category includes 159 words like "altar," "church," and "mosque." LIWC's norm percentage for the religion variable is 0.22 ($SD = 0.45$).

Language concerned with the past (H5) was measured by DICTION's past concern variable. DICTION's *past concern* variable includes the past-tense forms of the verbs contained in the present concern dictionary. DICTION's norm score for past concern is 3.58 ($SD = 2.61$).

Policy language (H6) was measured by DICTION's concreteness, numerical terms, and accomplishment variables and LIWC's money variable. On first consideration, it might appear to be difficult to measure "policy language" through computer-aided textual analysis in general because there is no reason to expect that discussions of different policy areas (such as immigration, gun control, energy, etc.) would share much common vocabulary. However, we found a number of variables that we could reasonably expect to measure the general characteristics of policy language. DICTION's *concreteness* variable counts material, tangible words, including physical structures (courthouse, temple, store), sociological units (peasants, African Americans, Catholics), occupational groups (carpenter, manufacturer, policewoman), and modes of transportation (airplane, ship, bicycle), among many other things. DICTION's norm score for the concreteness variable is 19.6 ($SD = 8.9$). We believed that policy language would be more concrete than language in general because policies nearly always concern concrete items. Policies also specify numbers, levels, and amounts. Therefore, policy language should use more numerical terms than general language. DICTION's *numerical terms* variable includes "any sum, date, or product specifying the facts in a given case" as integers and lexical forms (one, tenfold, hundred, zero), as well as numerical operations (multiply, divide, subtract, percentage) and quantitative topics (digitize, tally, mathematics). DICTION's norm score for numerical terms is 7.67 ($SD = 7.34$). Finally, DICTION's *accomplishment* variable also captures language related to policy in that it counts words expressing task-completion (establish, finish, influence, proceed) and organized human behavior (motivated, influence, leader, manage). It includes capitalistic terms (buy, produce, employees, sell), modes of expansion (grow, increase, generate, construction), general functionality (handling, strengthen, succeed, outputs), and programmatic language (agenda, enacted, working, leadership). DICTION's norm score for accomplishment is 14.51 ($SD = 9.55$). Finally, enacting policies nearly always costs money, and so we also expected LIWC's *money* variable to be a good index of policy language. This category includes 173 words like "cash," "owe," and "audit." LIWC's norm percentage for the money variable is 0.49 ($SD = 0.54$).

Independent Variable

Our independent variable was genre. For the genre variable, inaugural addresses were assigned a value of zero and state addresses were assigned a value of one.

Analysis

We had predicted that the dependent linguistic variables would vary by genre. So our analysis regressed the output for each linguistic variable on genre and speaker fixed effects and calculated robust standard errors with clustering by the speaker. We added a speaker fixed effects variable to the model because, as Table 1 shows, the number of speeches in our sample varied widely by speaker. For example, Bloomberg gave twelve state speeches and Lindsay only gave one. Furthermore, one-way ANOVAs showed that many of the linguistic variables varied significantly according to speaker (see Table 1). Therefore, since some of the speakers were overrepresented in our speech sample, we controlled for the effect of speaker by estimating the regressions with a speaker fixed effects variable in the model.

The speaker fixed effects variable allowed us to test the relationship between each linguistic variable and genre while holding the speaker variable constant. By “fixing” the speaker variable, we removed the variation related to speaker as we compared the differences in the dependent variables between inaugural and state speeches for each speaker. The fixed effects variable also removed any variation according to *office*. If presidential and mayoral speeches generally differ according to these linguistic variables, the fixed effects variable removed this variation since none of the speakers held more than one office.

Finally, the speaker fixed effects variable also removed variation according to large spans of *time* in history. Since our speech texts were delivered over a period of 61 years, there was the potential that the dependent variables varied over time. Although only one of our dependent variables was significantly correlated with year (accomplishment and year were negatively correlated), research has found that over time, presidential speeches have gotten longer and the language used in the presidential speeches has become simpler and more likely to include symbolic language (Fox, Spies, & Gilat, 2014; Sigelman, 1996). Lim found that between 1789 and 2000, presidential rhetoric became increasingly more abstract, anti-intellectual, assertive, democratic, and conversational (p. 328). In Whissell and Sigelman’s study of “power language” in presidential inaugurals, the best predictor for presidents’ use of simple, emotional, and value-rich language were time-based factors (2001). For a given speaker in our study, the maximum length of time between speeches included in the analysis was eleven years and the average number of years that each speakers’ speeches were delivered over was 5.16. Therefore, the speaker fixed effects variables generally controlled for variation across large spans of time.

Results

Table 2 presents the means, standard deviations, and ranges for our nine dependent variables measured by DICTION and LIWC: *praise, inspiration, leveling terms, religion, past concern, concreteness, numerical terms, accomplishment, and money*. The table also reports the correlations among the dependent variables, many of which are significantly correlated ($p < .05$). Table 3 shows the results of the regressions of the linguistic variables on genre and speaker fixed effects. We explain the results of these regressions for each variable below.

Hypothesis tests

The hypotheses predicted that the language of speeches would vary by genre, with inaugurals using more inspirational, unifying, and religious language that expressed praise than state speeches. They also predicted that state speeches would use more language concerning policy and the past than inaugurals.

Language of praise (H1). The first hypothesis predicted that inaugural addresses would have more language of praise than state speeches. But the results were not significant for DICTION's *praise* variable, so the first hypothesis was not supported.

Inspirational Language (H2). Inaugurals had significantly more words counted for DICTION's *inspiration* variable than state addresses. The second hypothesis was supported.

Unifying language (H3). The third hypothesis predicted that inaugural addresses would use more unifying language than state speeches. Inaugural addresses had significantly more words counted for DICTION's *leveling* variable than state speeches. Therefore, the third hypothesis was supported.

Religious language (H4). Although the fourth hypothesis predicted that inaugurals would have more religious language than state speeches, genre was not significantly related to LIWC's *religion* variable. Thus, the fourth hypothesis was not supported.

Language concerned with the past (H5). The fifth hypothesis predicted that state speeches would have more language concerned with the past than inaugurals. The state speeches had significantly more words counted for DICTION's *past concern* variable than inaugurals, therefore, the fifth hypothesis was supported.

Policy language (H6). The sixth hypothesis predicted that state addresses would have more policy language than inaugurals. Three of the four variables measuring policy language significantly varied by genre. State addresses had significantly more words counted for DICTION's *concreteness*, *numerical terms* and *accomplishment* (language related to task-completion) variables than inaugural addresses. Genre was not significantly related to LIWC's *money* variable. Therefore, our sixth hypothesis was supported, although less than fully.

Discussion

This study provides empirical evidence that there are systematic differences between genres of political speech, which is something that has never been done with computer-assisted textual analysis before. Although the characteristics of genres may not be "fixed and final" (Campbell & Jamieson, 2008, p. 139), they can be empirically observed in language. Although literary critics like Rosmarin *can* use genre as a "critical lens" that is independent of the text being analyzed, we have found that there are observable relationships between at least some genres of political speech and characteristics of text within those genres. Inaugural addresses are consistently more inspirational and unifying than state speeches. State speeches are consistently more past and policy oriented, having significantly higher levels of concrete language than inaugurals, and more tangible and material language about numbers, tasks, functions, and programs, which are all relevant to policy-making.

Although there were overall systematic differences between inaugural and state speeches, our study also discovered some unexpected similarities in use of praise, invocation of religion, and discussion of the world in monetary terms. We discuss each of these unexpected similarities below.

Language of Praise. We expected that because inaugural addresses are instances of epideictic discourse, they would also use more language of praise, than state speeches. But this hypothesis was not supported. It should be noted that overall levels of praise were

high relative to the norm. The norm is 6.18 and the overall average score for the entire speech set was 8.08. Eighty-three of our 132 speeches (62.9%) had scores above the norm, and every speaker except Kennedy, Ford, and Lindsay had an average praise score above the norm. But it appears that presidents and mayors are about as likely to use praise as a tool to build support for policies in state addresses as they are to use it to set the tone of their administrations in inaugurals. State speeches do, after all, have an epideictic element. Although chief executives must use deliberative rhetoric to demonstrate their legislative leadership and justify their policy recommendations, the state address is also “delivered on a formal, ceremonial occasion,” has a “ritualistic character,” and reflects on the values guiding those policy recommendations, which makes ceremonial rhetoric appropriate (Campbell & Jamieson, 2008, p. 162-164). Because the state speech is a mix of deliberative and ceremonial rhetoric, they, therefore, use some of the same rhetorical tools, such as strategic praise.

Religious Language: Given the prominent role of civil religion in presidential inaugurals, we predicted that inaugural addresses would have more religious language than state speeches. Overall, religious language was relatively strong in both genres of speeches. The norm for the LIWC religion variable is .22 and the average for our speech set was .36. Seventy-four of our 132 speeches (56%) had scores above the norm. Our results, however, found that inaugural addresses did not employ significantly more religious language than state speeches. The coefficient, although not significant, actually indicates that state speeches use more religious language than inaugurals, which contradicts our prediction. This does not discredit the work that has been done on the religious content of presidential inaugural addresses. Clearly, inaugural addresses have significant religious content. Rather, our results suggest that scholars interested in civil religion should not limit themselves to a reading of inaugurals. The religious content of state speeches, and probably other genres of executive speeches, is at least as strong. As executive leaders use their state speeches to meditate on values to interpret problems and guide policy recommendations, they are as likely to draw on religious language as they are when giving an inaugural address.

Money language: The amount of money language did not significantly vary according to genre. Although not related to genre, the level of money language was extremely high across the whole range of speeches we looked at. The norm score for the LIWC money variable is .49 and the average score in our speech set was 1.86. All but six of our 132 speeches had scores above the norm. All speakers have individual average scores that far exceed the norm. The lowest is Lindsay, whose score of .98 is twice the norm. All this indicates that both presidents and mayors use money-related words far, far more frequently in their speeches than they are used in other contexts, regardless of speech type. So it would appear that money is too constant a concern for both mayors and presidents to be much affected by genre.

In conclusion, this study offers empirical evidence that the language used in particular genres is similar for all speeches within those genres, even for different speakers, in different political offices, and at different times in history. It also indicates that we can see systematic differences in the language used in different genres, even when the speaker, role, and time period vary. These results argue that genre is not just a “critical lens,” but has an objective existence as observable patterns of language use in transcribed speeches. This study also suggests a number of directions for future research. Similar methods could be used to explore patterns of language use in other speech genres, such as eulogies, apologia, farewell addresses, and war rhetoric. Furthermore, although this study did not test hypotheses concerning the differences between the language used by US presidents and NYC mayors within or across genres, the results reported in the second regression model

(Table 4) give at least a preliminary indication that there are significant differences in language use between US presidents and NYC mayors. Future research could examine the similarities and differences in the discourse of governmental executives like presidents, governors, and mayors.

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Table 1 Characteristics of Texts and Means for Linguistic Measures by Speaker

Speaker	Dates in Years	Inaugurals <i>N</i> = 32	State Addre ss es <i>N</i> = 100	Praise	Inspira -tion	Level ing Terms	Relig ion	Past Concer n	Concre teness	Numer ical Terms	Accom plishm ent	Money
US Presidents (<i>N</i> = 11)												
Eisenhower	1953- 1960	2	8	7.39 ^a	12.20 ^b c	10.91 ^a bc	.40 ^{ab}	2.72 ^{ab}	19.68 ^a bc	4.76 ^{abc}	18.92 ^b c	2.18 ^{abc} d
Kennedy	1961- 1963	1	3	5.07 ^a	8.29 ^{abc}	9.68 ^{abc}	.35 ^{ab}	1.44 ^a	16.65 ^a	3.55 ^{ab}	14.32 ^a bc	2.22 ^{bcd}
Johnson	1964- 1969	1	6	10.33 ^a b	8.30 ^{abc}	9.85 ^{abc}	.31 ^{ab}	2.59 ^{ab}	17.05 ^a b	6.99 ^{abc}	15.64 ^a bc	1.68 ^{abc} d
Nixon	1970- 1974	2	5	12.18 ^a b	10.09 ^a bc	8.35 ^{ab}	.39 ^{ab}	1.89 ^{ab}	19.97 ^a bc	5.10 ^{abc}	14.31 ^a bc	1.12 ^{ab}
Ford	1975- 1977	0	3	5.55 ^a	5.65 ^a	14.62 ^c	.24 ^a	2.12 ^{ab}	25.58 ^c d	7.15 ^{abc}	15.72 ^a bc	2.76 ^d
Carter	1977- 1980	1	3	16.40 ^b	13.39 ^b c	7.25 ^{ab}	.75 ^b	1.70 ^a	16.56 ^a	3.05 ^a	28.41 ^d	1.47 ^{abc}
Reagan	1981- 1988	2	8	6.83 ^a	9.62 ^{abc}	5.98 ^a	.57 ^{ab}	5.08 ^b	16.76 ^a	5.36 ^{abc}	12.72 ^a bc	2.42 ^{cd}
H.W. Bush	1989- 1992	1	4	8.25 ^a	7.09 ^{ab}	9.86 ^{abc}	.49 ^{ab}	3.04 ^{ab}	16.20 ^a	3.54 ^{ab}	8.72 ^a	1.71 ^{abc} d
Clinton	1993- 2000	2	8	7.12 ^a	8.19 ^{abc}	11.00 ^a bc	.31 ^{ab}	3.48 ^{ab}	23.52 ^a bcd	6.08 ^{abc}	12.88 ^a bc	2.08 ^{abc} d
W. Bush	2001- 2008	2	8	8.47 ^a	13.72 ^c	8.65 ^{ab}	.54 ^{ab}	2.79 ^{ab}	16.03 ^a	4.41 ^{abc}	16.09 ^a bc	1.96 ^{abc} d
Obama	2009- 2014	2	6	6.92 ^a	8.34 ^{abc}	8.64 ^{ab}	.35 ^{ab}	3.50 ^{ab}	17.30 ^a b	4.04 ^{abc}	13.62 ^a bc	2.40 ^{cd}
Total		16	62									
NYC Mayors (<i>N</i> = 8)												
Wagner	1954- 1962	3	6	8.25 ^a	8.69 ^{abc}	8.20 ^{ab}	.27 ^a	3.45 ^{ab}	22.89 ^a bcd	6.57 ^{abc}	19.16 ^c	1.66 ^{abc} d

Lindsay	1966-1969	2	1	5.92 ^a	9.94 ^{abc}	8.86 ^{ab}	.46 ^{ab}	2.27 ^{ab}	24.43 ^b cd	2.69 ^a	12.96 ^a bc	.98 ^a
Beame	1974-1977	1	2	8.27 ^a	10.58 ^a bc	7.86 ^{ab}	.27 ^a	1.30 ^a	22.53 ^a bcd	4.22 ^{abc}	17.47 ^a bc	2.21 ^{bcd}
Koch	1978-1989	3	6	7.28 ^a	5.64 ^a	6.89 ^a	.25 ^a	3.26 ^{ab}	25.02 ^c d	8.92 ^c	11.95 ^a bc	1.67 ^{abc} d
Dinkins	1990-1993	1	3	6.28 ^a	8.31 ^{abc}	8.81 ^{ab}	.41 ^{ab}	3.12 ^{ab}	26.38 ^c d	6.71 ^{abc}	12.54 ^a bc	1.81 ^{abc} d
Giuliani	1994-2001	2	7	8.11 ^a	7.78 ^{abc}	9.29 ^{ab}	.27 ^a	5.08 ^b	22.84 ^a bcd	8.46 ^{bc}	16.19 ^a bc	1.30 ^{abc}
Bloomberg	2002-2013	3	12	7.94 ^a	7.14 ^{ab}	12.54 ^b c	.20 ^a	2.43 ^{ab}	24.59 ^b cd	8.69 ^c	14.91 ^a bc	1.73 ^{abc} d
de Blasio	2014-2014	1	1	6.24 ^a	5.14 ^a	8.44 ^{ab}	.24 ^a	4.65 ^{ab}	28.53 ^d	2.92 ^a	9.30 ^{ab}	1.75 ^{abc} d
Total		16	38									

Note: Means with different superscripts are significantly different from each other at $p < .05$ using Duncan post-hoc comparison tests.

Table 2 Correlations, Means, and Standard Deviations for the Linguistic Measures (N = 132)

	Inspir- a-tion	Level- ing Terms	Religio n	Past Conce rn	Concr etene ss	Nume r-ical Terms	Accom p- lishme nt	Money	<i>M</i>	<i>SD</i>	Range
Praise	.05	.00	.13	-.18*	-.22*	-.12	.17*	-.26**	8.08	4.84	1.78 – 38.58
Inspiration		.09	.47**	-.17	-.35**	-.35**	-.01	-.08	8.96	4.64	1.22 – 31.84
Leveling Terms			-.02	-.17	.13	-.09	-.13	-.09	9.34	3.87	2.54 – 30.54
Religion				-.09	-.40**	-.43**	-.21*	-.51**	0.36	0.32	0.03 – 2.03

Past Concern	.08	.09	-.03	.19*	2.98	2.25	0.12 – 19.09
Concreteness		.40**	-.08	.14	20.91	6.06	7.54 – 38.86
Numerical Terms			.07	.16	5.97	3.71	0.12 – 24.73
Accomplishmen t				.16	15.12	6.94	5.23 – 61.64
Money					1.86	0.85	0.00 – 4.60

* $p < .05$. ** $p < .01$.

Table 3 Regressions of Linguistic Measures on Genre with Speaker Fixed Effects ($N = 132$)

	Praise	Inspira- tion	Leveling Terms	Religion	Past Concern	Concret e-ness	Numeric Terms	Accomp - lishment	Money
Genre (Inaugural/State)	-1.605	-2.480*	-1.335*	.063	.992*	3.360**	3.145***	3.573**	.128
	(1.669)	(1.219)	(.641)	(.074)	(.453)	(1.010)	(.415)	(1.201)	(.153)
Speaker Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R ²	.204	.296	.284	.076	.187	.418	.397	.297	.089

Inaugural = 0, State Address = 1

Robust standard errors in the parentheses were calculated with clustering by the speaker

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq .001$

Table 4 Regression of Linguistic Variables on Genre and Office (*N* = 132)

	Level- ing	Inspir- ation	Concret eness	Praise	Present Concer n	Religio n	Numeri c Terms	Accomp lishmen t	Past Concer n	Work	Money
Genre (Inaug./State)	-.809 (.699)	-2.595* (1.104)	3.324** (.986)	-1.572 (1.443)	1.781 (.932)	.059 (.066)	3.550** (.406) *	3.570** (1.003)	.945* (.407)	-.088 (.241)	.137 (.132)
Office (Pres./Mayor)	.100 (1.241)	- (.857) 2.520**	6.036** (1.013) *	-.910 (.767)	1.579* (.659)	-.089** (.029)	2.739** (.597) *	.105 (1.468)	(.033) (.403)	.533* (.215)	.080 (.117)
R ²	.009	.116	.273	.025	.064	.028	.271	.049	.032	.041	.006

Inaugural = 0, State Address = 1

Presidential = 0, Mayoral = 1

Standard errors in the parentheses are clustered for each speaker

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq .001$

Notes

¹ Some of the speeches we included in our sample were not technically titled SOTU, such as the speeches of Reagan in 1981, George Bush in 1989, Clinton in 1993, by George W. Bush in 2001, and Obama in 2009. Our sample does not include the SOTU messages that were not delivered orally, including several written messages of Eisenhower, Carter, and Nixon.

² We are missing texts for several SOTCs that the *New York Times* reports were delivered, including SOTCs given by Wagner in 1957, 1958, 1962, 1963, and 1964, Beame in 1975, and Koch in 1979. Because the Charter requirement that the mayor report annually to city council has sometimes been fulfilled in other ways, a State of the City Address has not been delivered every single year during the study period. A search of the *New York Times* reveals no reference to any official State of the City speech given by John Lindsay either prior or subsequent to that of 1969, although there is a notice that he delivered a “state of the city” talk to the Newspaper Reporters Association in 1967 (*New York Times*, Jan 15 1967, A3). There are no references to Mayor Beame giving a State of the City Speech in the year 1974, and Mayor Koch explicitly states in his 1984 State of the City Address that he had not given in any other such address for five years. Mayor Koch gave a rare “outgoing” State of the City Address in December of 1989. There is no record of Mayor Dinkins delivering a State of the City Address in 1990, of Mayor Koch delivering one in 1978, or of Mayor Giuliani delivering one in 1994. In each case the missing year is the year the mayor took office. A State of the City Address has definitely been given in every year from 1995 to the present.