

Using a Small Corpus to Test Linguistic Hypotheses: Evaluating ‘People’ in the State of the Union Addresses

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Abstract

This paper argues that small corpora are useful in testing specific linguistic hypotheses, particularly those dealing with rhetoric, stylistics, and sociolinguistics. In particular, we hypothesize that creating a database of U.S. presidential speeches will allow for a diachronic exploration of language use at the highest political level, and enable a contrast to be drawn between legislative advances for minorities in the United States and the integration of those advances into the presidential lexicon. In order to test this hypothesis, we examine the corpora of State of the Union Addresses from 1945 to 2006. We demonstrate that while there was clearly a shift two decades ago to systematically portraying human beings as being made up of two genders, or being subsumed under a gender-neutral term, other aspects of gender, such as parenthood, are still stereotyped by American presidents. In short, analyzing lexical instances related to ‘people’ in the State of the Union address allows us not only to reflect on the values held by U.S. presidents, but also to systematically uncover how they use language to exercise power on the very people they are elected to serve.

Keywords: Small Corpora, Politics, Language, Gender, Diachronic Analysis

1. Introduction

In the latter half of the twentieth century, American presidents have had the enviable task of shaping the way Americans think about themselves by delivering a State of the Union address near the beginning of each calendar year. This speech is broadcast live across the nation on major television and radio channels. In the address, the president emphasizes his accomplishments to date and sets out a new agenda for the year. Topics touched upon may include both foreign and domestic policy, and run the gamut from justification for war to a

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fervent plea to pass an education bill. The complete text of the address appears the following day in major newspapers and in on-line news resources.

Thus, these addresses constitute a narrow, but influential media genre, since subsequent discourse in the news media often reports on the proposals put forth by the president in his own terminology [Barrett 2004]. This terminology reflects the ideology of the ruling political party, and it is this ideology that is used to exercise power “through the manufacture of consent” [Fairclough 2001]. Moreover, as Van Dijk [1993] notes, “More control over more properties of text and context, involving more people, is thus generally (though not always) associated with more influence, and hence with hegemony” (p. 257). Thus, a linguistic analysis of presidential speeches has the potential to shed light on how the president views (and wants the country to view) economic, political, and social issues of the day.

Recent advances in corpus linguistics have facilitated the collection and analysis of presidential speeches. Kowal *et al.* [1997], for example, created a specially marked-up corpus of Inaugural Addresses by hand in order to look at the interaction between literacy and orality in presidential speeches, while Charteris-Black [2004, 2005], who looked only at the text, was able to examine the use of metaphor as well as rhetorical devices used by U.S. presidents based on the corpora of U.S. presidential speeches found on-line.

Lim [2002] also used the corpora of U.S. inaugural addresses, as well as the annual messages (State of the Union addresses), in order to identify rhetorical change in presidential speeches. He argued that presidential speeches have become more anti-intellectual, as well as more abstract, democratic, assertive, and conversational, according to changes that can be seen in the categories of words that occur in speeches over time. He also found that words related to cognitive processes and states have decreased since Hoover, while interjections have increased, indicating a decline in the difficulty of presidential rhetoric. In addition, words having to do with ‘kinship’, which Lim suggests reflects democratic rhetoric, have increased substantially since Franklin Roosevelt, as have words relating to ‘children’ and ‘youth’ since Carter. While Lim’s paper suggests that frequency of lexical use is a way of judging what is important to the president and to the public, to date there has been no systematic analysis of changes in lexical use within the scope of presidential speeches. Thus, it is the goal of this paper to demonstrate that by combining presidential speeches into a corpus, subtle changes in language use over time can be determined by examining the frequency of occurrence of key words as well as their associated collocations [Stubbs 1996].

In order to examine this issue, we will explore language use pertaining to ‘people’ in all of the State of the Union addresses (SUO corpus) from 1945 to 2006 by analyzing the tokens:

*humankind, mankind, man, men, woman, women, mother, father and parent.*¹ We will demonstrate that while there has clearly been shift away from using *man, men, and mankind* to refer to all human beings, other aspects of gender, such as parenthood, are still stereotyped by American presidents.

2. Methodology for Corpus Creation

The State of the Union (SOU) corpus was downloaded one speech at a time from the C-Span website (c-span.org). All State of the Union speeches from 1945-2006 (excluding Nixon's five SOU speeches from 1970-1974) were directly downloaded to text files (Table 1). Nixon's speeches were printed out from Adobe files, manually typed into a document file, and then saved to a text file. These five files were then checked by two additional readers for accuracy and any errors or omissions were corrected. Each file was then imported into Microsoft Word and the president's words in the speech were highlighted and counted with the word-count feature. In most cases, this meant that the heading was omitted (*i.e.* "President Harry S. Truman's Address Before a Joint Session of Congress"). In other cases, information about where and when the speech was given, or who introduced the President also had to be omitted from the word count. In the case of Bush Jr., indications of "(Applause.))" had to be deleted as well.² In short, every effort was made to include the words used by the president himself in the word count.³ In addition, it is important to note that these speeches were given orally from a prepared text. The version that being examined here is the version that was provided for the written, historical record and the content may therefore vary slightly from the actual words that the president spoke.

¹ 1945 was chosen as the start date because C-span starts their database with Truman's 1945 address to Congress. 1945 is also significant because the Second World War came to a close in that year. 1947 was also considered as a starting date, since that was the first year the SOU address was broadcast on television. However, since all the other presidents have their complete SOU corpus included in the study (complete to date for Bush Jr.), 1945 was selected as the starting year so that Truman's corpus would also be complete.

² "Bush Sr." refers to George H. W. Bush, and "Bush Jr." refers for George W. Bush, following the usage in Charteris-Black [2005].

³ It is important to note that Microsoft Word counts the dash punctuation mark as one word when it is written as two short hyphens close together with a space on either side or as one short hyphen with a space on either side (*i.e.* as "--" or as "-"). When it is written as a long, unbroken line, as in "—" the program does not count it as a word. In addition, in some speeches, only a short hyphen is used without a space on either side, which the word count program then interprets as a hyphenated word. Ideally, for the most precise word count possible, each speech should be re-edited for uniformity among the various types of dash marks used. However, such editing carries the risk of altering the intent of the original and was not carried out for this study.

The total and average word counts for each president are given in Table 1 for the Democratic and Republican presidents. Since some presidents gave more than one SOU address in a given year (*i.e.* Bush gave two addresses in 2001, one on 2/27 and one on 9/20), there are a total of 65 speeches in this corpora.⁴

Table 1. State of the Union Speeches included in current corpora

Name	Year	Number	Political Party	Word Count	Avg. # Words/Speech
Truman	1945-1951	7	Democrat	52,934	7562
Eisenhower	1953-1960	8	Republican	48,185	6023
Kennedy	1961-1963	3	Democrat	18,168	6056
Johnson	1963-1969	8*	Democrat	34,902	4363
Nixon	1970-1974	5	Republican	19,422	3884
Ford	1975-1977	3	Republican	13,801	4600
Carter	1978-1980	3	Democrat	11,250	3750
Reagan	1981-1988	8	Republican	36,664	4583
G.H.W. Bush	1989-1992	5*	Republican	20,477	4095
Clinton	1993-2000	8	Democrat	60,591	7574
G. W. Bush	2001-2006	7*	Republican	32,358	4623
Total		65		348,752	5365

*Presidents gave more than one SOU in a given year.

Clinton, is, as noted by many pundits, the most prolix speaker in terms of the average number of words per speech (Table 1), although Truman is a close second, and Kennedy and Eisenhower follow with approximately 6,000 words per speech. These are also the only four presidents to have a higher word count than the average of 5365 words per speech; all the other presidents average between 3700 and 4700 words per speech (Table 1 above).

After saving all 65 speeches as text files, a meta-file was created and word searches were run using Wordsmith, Version 3 (<http://www.lexically.net/wordsmith/>).⁵ Wordsmith creates a concordance for all instances of the lexical item chosen, with links to the full-text. Data on the number of instances found is then saved into Excel tables for further analysis.

⁴ C-span incorrectly lists Carter as giving a SOU speech in 1981. The actual file under Carter's name is in fact, Reagan's first SOU address (as accessed on February 6, 2006 at http://www.c-span.org/executive/transcript.asp?cat=current_event&code=bush_admin&year=1981). This has not been included in the Carter's corpus herein, but it is, of course, included in Reagan's.

⁵ Note that in this version possessives are included when a noun is entered as a search term (*i.e.* when searching for "mankind" the form "mankind's" is also returned).

3. Socio-Cultural Background

This paper hypothesizes that the language used by politicians became more inclusive from the middle of the 20th century to the beginning of the 21st century. In particular, social gains from the Civil Rights Act of 1964, which prohibited employment discrimination on the basis of race, color, religion, national origin, or gender, should become apparent.⁶ However, many doors to women were still closed, even after this law went into effect. For example, the state law of Virginia prohibited women from being admitted to the College of Arts and Sciences of the University of Virginia as late as 1970.⁷ Due to increasing demand for equal access to education at all levels, Title IX was passed, and signed into law in 1972 by Nixon. Title IX prohibits institutions that receive federal funding from practicing gender discrimination in educational programs or activities. It took two years for regulations to be drawn up for Title IX, and in 1974 they were published, with Ford signing them into law in 1975. Thus, there is a societal and legislative shift during the decade from 1964-1974. Since the corpus under consideration here identifies all uses by date and speaker, it is possible to contrast critical legislative and legal events with the occurrence of relevant terms or changing use of terms in the presidential lexicon and ask the question: How soon after this legislation was discriminatory language use dropped from presidential parlance?

In particular, we hypothesize that there should be a marked decrease in the use of *mankind* to refer to all humankind, as well as a decline in the use of *man* to refer to all people. In addition, references to women should go beyond motherhood and include the contributions that women make to society. Lastly, use of *mother(s)* and *father(s)* should demonstrate the variety of roles that each parent plays in the family and society. These changes would reflect the advances American women have made over the past half a century and would indicate that women's contributions are being recognized at the highest levels of power in the government.

4. Data Analysis

We first look at the number of occurrences for *mankind* and *humankind* (Figures 1 and 2). Figure 1 shows the tokens of occurrences of *mankind* and *humankind* in each presidential State of the Union Corpus, while Figure 2 shows the percentage of occurrence of *mankind* and *humankind* when divided by the total number of words in each presidential SOU corpus.

⁶ The prohibitions on employment discrimination were codified in Title VII of the 1964 Civil Rights Act.

⁷ *Kirstein v. Rector and Visitors of University of Virginia*, 309 F.Supp. 184 (E.D. Va. 1970), accessed from www.ed.gov/pubs/TitleIX/part3.html#road on October 20, 2005.

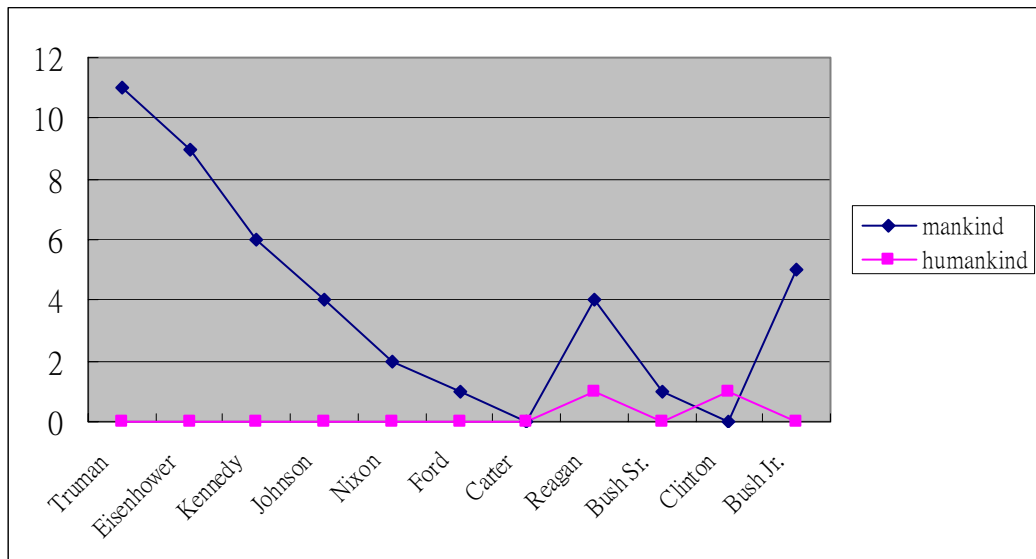


Figure 1. Tokens of occurrences of mankind versus humankind

It is clear that there is a steady decrease in the use of *mankind* from 1945 to 1979, although Figure 2 shows that Kennedy, overall, had the highest percentage of occurrences of *mankind*.

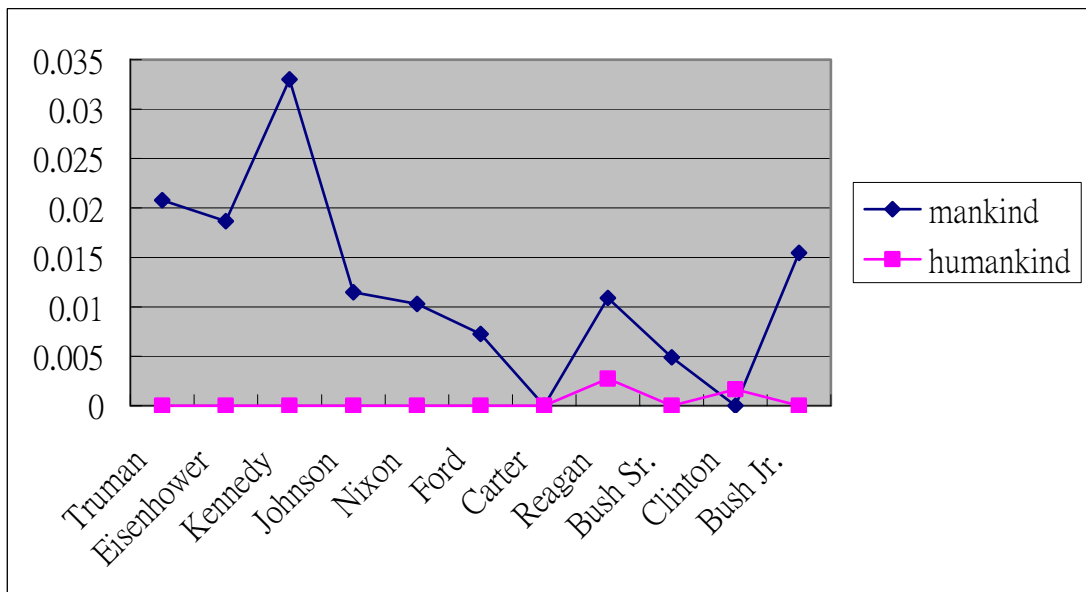


Figure 2. Percentage of occurrences of mankind versus humankind

What is interesting is that, even though there is a clear decline in the use of *mankind* from Truman through Carter (in terms of number of tokens) and between Johnson and Carter (in terms of percentage of use), Ronald Reagan and both Bushes keep the term alive (cf. examples

1-3).

- (1) *That we would use these gifts for good and generous purposes and would secure them not just for ourselves, and for our children, but for all mankind.* [Reagan 1987]
- (2) *What is at stake is more than one small country; it is a big idea: a new world order, where diverse nations are drawn together in common cause to achieve the universal aspirations of mankind -- peace and security, freedom, and the rule of law.* [Bush Sr. 1991]
- (3) *The cause we serve is right, because it is the cause of all mankind.* [Bush Jr. 2004]

However, Carter and Clinton (both Democrats) clearly shun usage of the term, with Clinton preferring to use the inclusive term *humankind* instead (example 4).

- (4) *Throughout all history, humankind has had only one place to call home, our planet, Earth.* [Clinton 1998]

This indicates insensitivity to language use on the part of these three Republican presidents (Reagan, Bush Sr., and Bush Jr.) in comparison with Carter and Clinton. Reagan's case is especially telling since he uses both *humankind* (example 5) and *mankind* (example 6) in the same speech (albeit paragraphs away from each other).

- (5) *...the belief that the most exciting revolution ever known to humankind began with three simple words: "We the People"--the revolutionary notion that the people grant government its rights...* [Reagan 1988]
- (6) *It reduces the risk of war and the threat of nuclear weapons to all mankind. Strategic defenses that threaten no one could offer the world a safer, more stable basis for deterrence.* [Reagan 1988]

Thus, for Reagan, these two terms are interchangeable (or on an alternative reading of (6), nuclear weapons only threaten men and not women).

Reagan and Bush Sr. also use *man* to stand for ‘human being’ (Figures 3 and 4; examples 7 and 8 respectively), again indicating an insensitivity to the language and gender issues, or else, on an alternative reading, an admission that the problems faced by society are beyond the ken of men, but not of women (example 8).

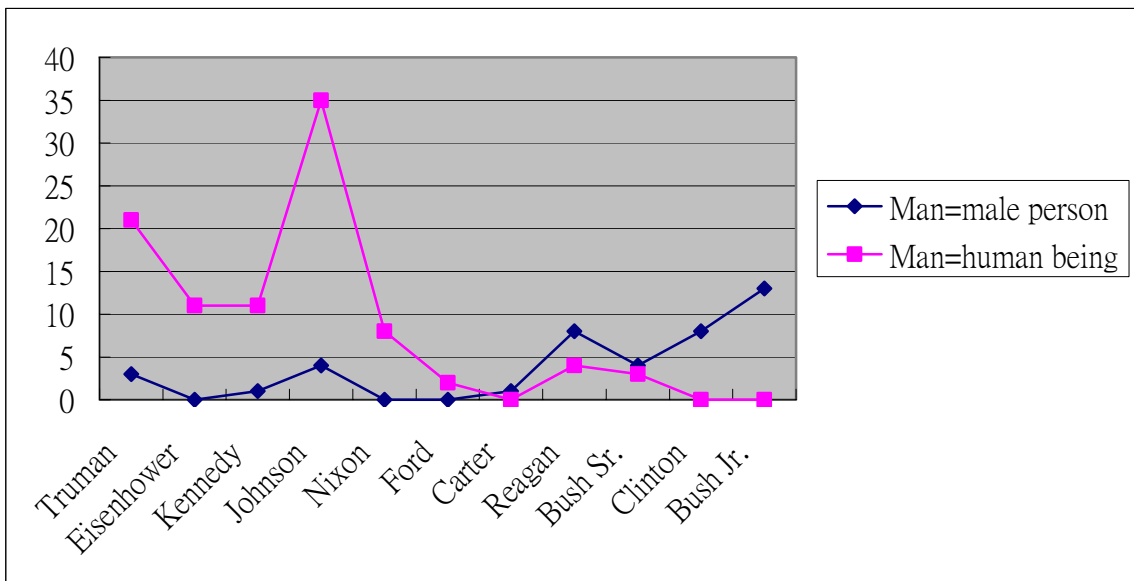


Figure 3. Tokens of occurrences of *man* as a male person versus *man* as standing for all humans

(7) How can we not do what is right and needed to preserve this last best hope of man on Earth? [Reagan 1984]

(8) Twice before, those hopes proved to be a distant dream, beyond the grasp of man. [Bush Sr. 3/6/1991]

Yet even so, the downward trend in the use of *man* to stand for ‘human beings,’ in both number of tokens used and overall percentage of usage in each SOU corpus (Figure 4), indicates that this usage decreased after 1970.⁸

⁸ We ascertained that ‘man’ referred to ‘human being’ if it could be replaced by ‘human being(s)/person/people’ without changing the truth condition of the sentence.

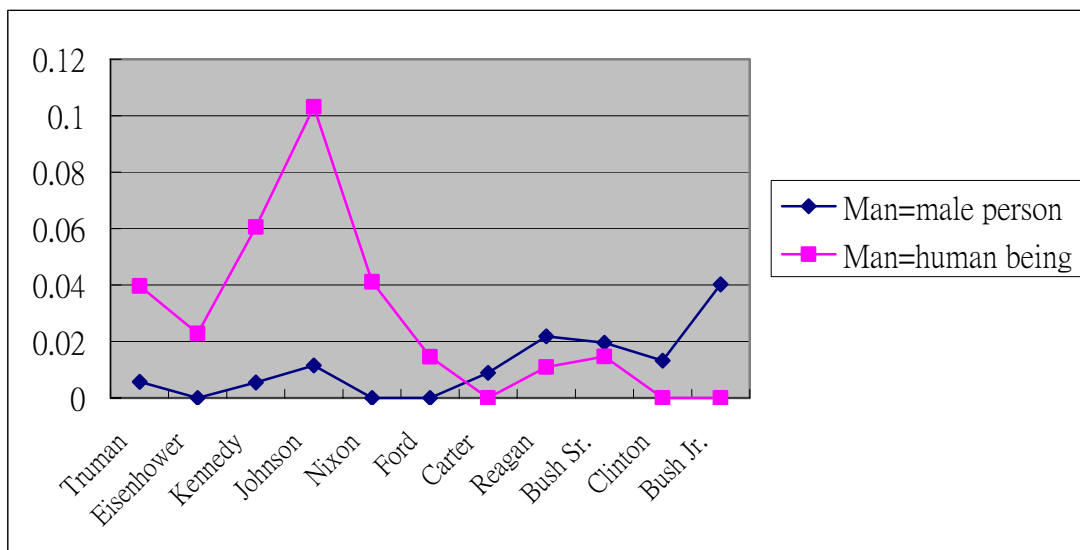


Figure 4. Percentage of occurrences of man as a male person versus man as standing for all humans

In fact, the two most recent presidents, one Republican and one Democrat, both clearly avoid the use of *man* to stand for ‘human being.’ Their data (or absence thereof) contrasts sharply with Democratic and Republican presidents fifty years earlier, who regularly used *man* to stand for all human beings, as for example, when Johnson states, “I speak tonight for the dignity of *man* and the destiny of democracy” (January 4, 1965). In addition, the fact that Bush Jr. never uses *man* to refer to ‘human being’ contrasts with his usage of *mankind* as discussed above, and distinguishes himself from the rhetoric of Bush Sr. and Reagan who use both *man* and *mankind* to refer to men and women.

Thus, from the data so far, results are mixed. In terms of *mankind* there is a decreasing trend in usage from 1945 to 1979. However, recent Republican presidents are keeping the term alive. In terms of *man* standing for all people, this usage did not disappear until 1993, much later than hypothesized. However, there was a clear difference between its frequency of use pre-1970 as compared with post-1970.

A similar decline is found in the use of *men* to mean ‘human beings’ as shown in Figures 5 and 6.⁹ In addition, the use of *men* to refer to soldiers, doctors, senators showed a clearly precipitous decline as well.

⁹ The search was run for ‘men’ excluding the collocation ‘men and women.’ We ascertained that ‘men’ meant ‘human beings’ if it could be replaced with ‘humans/human beings/people’ without changing the truth condition of the sentence.

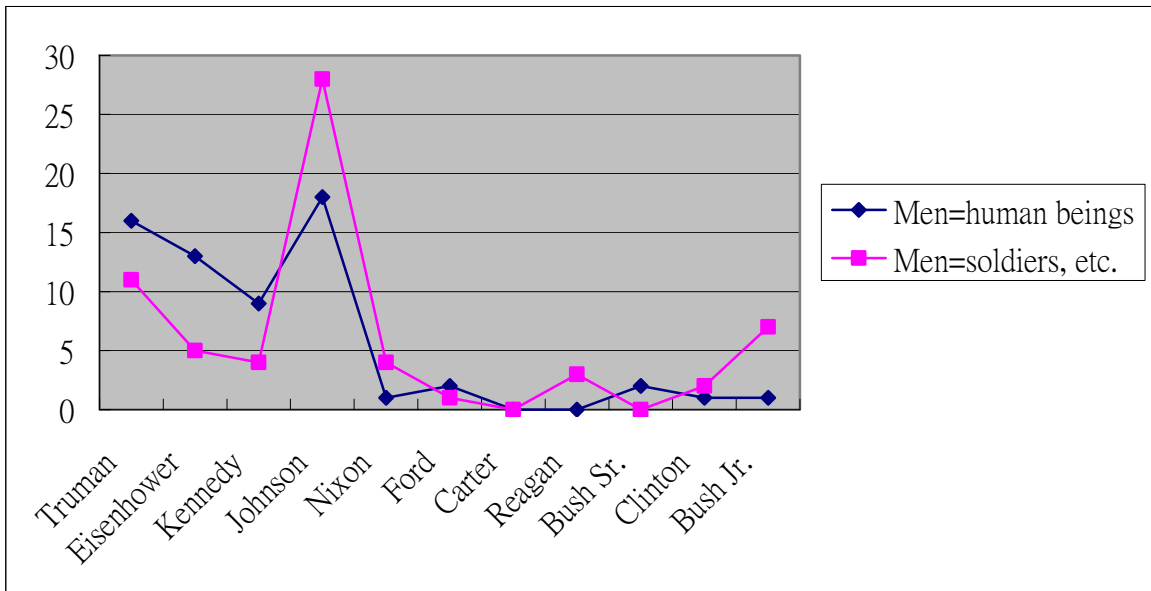


Figure 5. Number of tokens of ‘men’ as soldier, etc. versus ‘men’ as standing for all people

This indicates that these positions were viewed as being filled exclusively (or almost exclusively) prior to 1970 by men, even if this was not necessarily the case. That is, one possibility is that the presidents knew that women served in the armed forces, but yet chose to use the word ‘men’ to refer to members of the armed forces in any case. The other possibility is that the fact that women served (in albeit much smaller numbers) in auxiliary roles in the armed forces was not recognized by presidents.

The use of *men* pre-1970 is used generically, but is also used to refer to soldiers (9), senators (10), and lawyers (11), *i.e.* jobs that were prototypically male. Johnson, who was president during much of the Vietnam war, used *men* to refer to soldiers most frequently (Figure 5), but he also used *men* to refer to people in prototypically male positions (examples 10 & 11), such as senators and law enforcement agents.

(9) *Our men are fighting, alongside their United Nations allies, because they know...* [Truman 1951]

(10) *You will soon learn that you are among men whose first love is their country, men who try each day to do as best they can what they believe is right.* [Johnson 1965]

(11) *I ask the Congress for authority to hire 100 more. These young men will give special attention to this drug abuse, too.* [Johnson 1968]

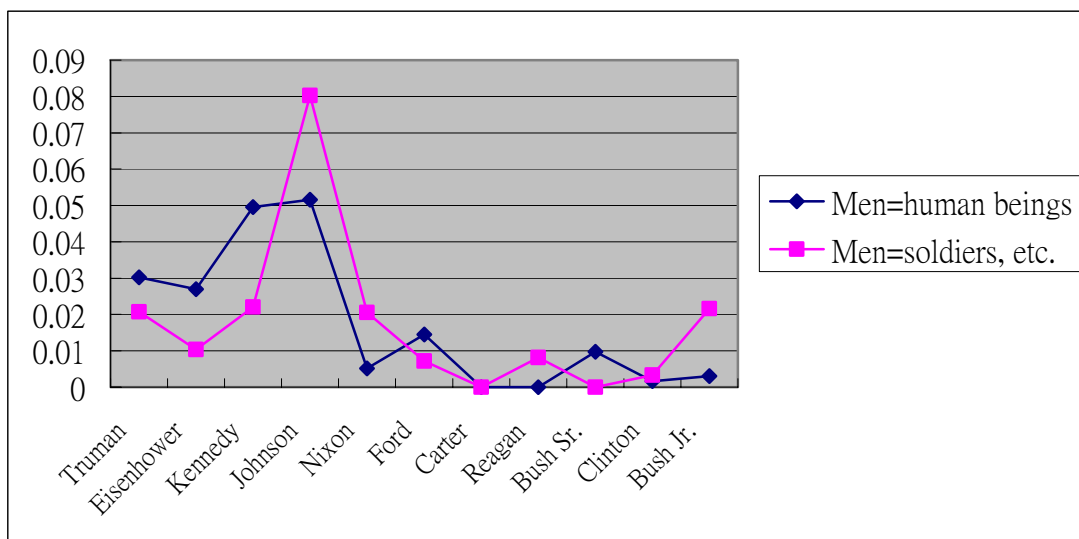


Figure 6. Percentage of occurrences of 'men' as soldier, etc. versus 'men' as standing for all people

In fact, it is not until Reagan that women are recognized as being part of the Armed Forces, although many fought and died as nurses and support staff in the Armed Forces prior to 1980.¹⁰ Both Bush Sr. and Clinton use *men* when quoting from the Declaration of Independence (“all *men* are created equal”). Bush Sr. also talks about how the world is growing “stronger, more united, more attractive to *men* on both sides of the Iron Curtain...” These two usages are the only instances of *men* being used to stand for both men and women in Bush Sr.’s corpora; however, he also uses *man* to stand for all humans three times as well. Although this could be considered a continued insensitivity to issues related to language and gender; from another point of view, his percentage of usage of the gender-encompassing reading is in sharp contrast to the percentage of usage to presidents prior to 1970. In fact, the overall percentage of usage of *man* or *men* to stand for all humans showed a large decrease in percentage of usage post-1970 as compared with the period prior to 1970.

Bush Jr.’s use of *men* deserves special note because he uses it to refer to ‘evil-doers,’ as in example (12).

(12) *This conviction leads us into the world to help the afflicted, and defend the peace, and confound the designs of evil men.* [Bush 2003]

¹⁰Truman did refer to men and women who have suffered in the Second World War in his first SOU address when he said, “Our debt to the heroic men and valiant women in the service of our country...”

Although Bush Jr. is careful to talk about America's servicemen and servicewomen, he terms propagators of acts of terror as 'men' and does not use gender-inclusive language that can be found elsewhere in his speeches. Although we sincerely hope that it is the case that terrorist masterminds will not in the future include women among their ranks, it is interesting to compare Bush's language with that of Eisenhower, Truman, Kennedy, and Johnson, as it is apparent in their speeches that they did not foresee women joining the ranks of lawyers, politicians and soldiers.¹¹

The data used to provide Figure 5 also shows that the use of the word *men* occurs alone 128 times in the total corpus (referring to both human beings and soldiers, lawyers, politicians, etc.) *Women* by contrast, occurs alone only 32 times (*i.e.* when it does not co-occur with *men*). Comparisons of *woman* and *man* (23 tokens versus 137 tokens) and *she* and *he* (68 tokens versus 294 tokens) substantiate this approximately five to one ratio between male terms and female terms.

In addition, when women are mentioned, they are not mentioned as politicians or business leaders or doctors. Truman talks about working women (1 time), Carter emphasizes legal rights for women (3 times), Reagan talks about legal and economic equity for women (6 times), and women as mothers (1 time) and workers (1 time). Bush Sr. talks about pregnant women and working women (1 time each). Clinton talks about taking better care of women and children (7 times) and equity for working women (2 times). Bush Jr. talks about rights for women at home and abroad (6 times), and protecting women and children from terrorist acts (2 times) and respecting women (1 time). In short, women are talked about much less frequently than men, even in recent years, and when they are talked about they are not thanked for their contributions to the society as the Founding Fathers, senators, lawyers, and soldiers are (although later presidents (Reagan and on) do thank the men and women serving in the armed forces). Women as a group are not held up for emulation, they are only mentioned in reference to having their economic and political lot improved.

This finding can be corroborated by contrasting modification of specific men and women. Eight specific men are modified by 'good' (twice), 'great' (once), 'good and honest' (once), 'prudent' (once), 'evil' (once, for Saddam Hussein), 'reasonable' (once), 'very wise' (once), and 'brave young' (once). Women, when occurring alone, are modified as follows: Tired, decent cleaning woman (once), young woman (once), battered women (once), elderly women (once), and pregnant women (three times). Thus, it seems while there has been advances in recognizing the fact that women serve alongside men in the Armed Forces, and that 'man' is not a gender-inclusive term, still women face an uphill battle to have their deeds and accomplishments recognized – to be held up as the standard bearer for others to follow.

¹¹ Note, for example, the recent news about female suicide bombers in the fall of 2005.

Lastly, the role of motherhood has traditionally been the contribution that women were supposed to play to society. Yet Figures 7 and 8 show that the presidents before Reagan rarely discussed *mother(s)* or *parent(s)*. When presidents talk about *father(s)* it is to mention the Founding Fathers or fathers who went away to war (in terms of the children who are left without a father).

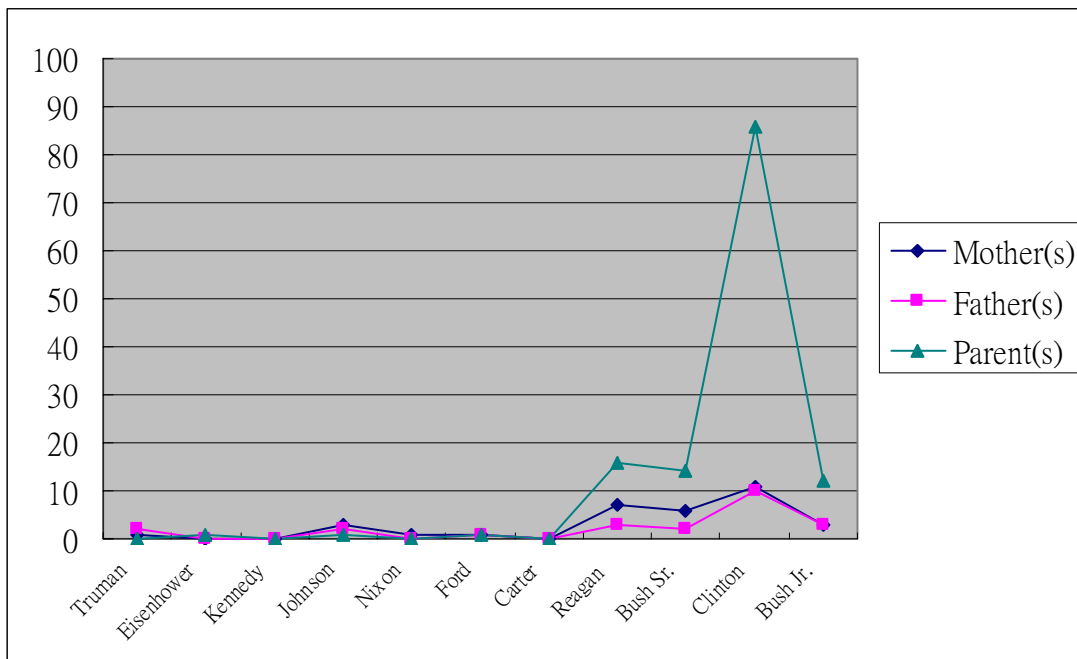


Figure 7. Tokens of occurrences of father(s), mother(s), and parents

More recent presidents (Clinton, for example) talk about the responsibilities fathers have to support their families. Mothers, on the other hand, are often mentioned in terms of their age ('young' or 'teen'), work status ('working' or 'poor') or health ('expectant' or as someone who uses drugs). While the sample size is admittedly small, it demonstrates that the fathers are still primarily considered the providers and the mothers are primarily nurturers. Imagine, for example, the use of 'working fathers.' It doesn't appear in the presidential corpus because it is a given. People do not yet prototypically identify fathers as being either working or non-working as they do mothers.

The word *parent*, however, shows a marked increase in usage post-1980, indicating that the issue of child-rearing gained importance in the discussion of domestic policy. Reagan is the first president to use *parent(s)* more than once in a SOU speech, while Clinton uses the word eighty-six times. There is also a clear increase in percentage of use of *parent(s)* between Reagan and Clinton, which drops off sharply with Bush Jr. This most likely has to do with Bush Jr.'s focus on terrorism and foreign policy issues, as opposed to domestic issues.

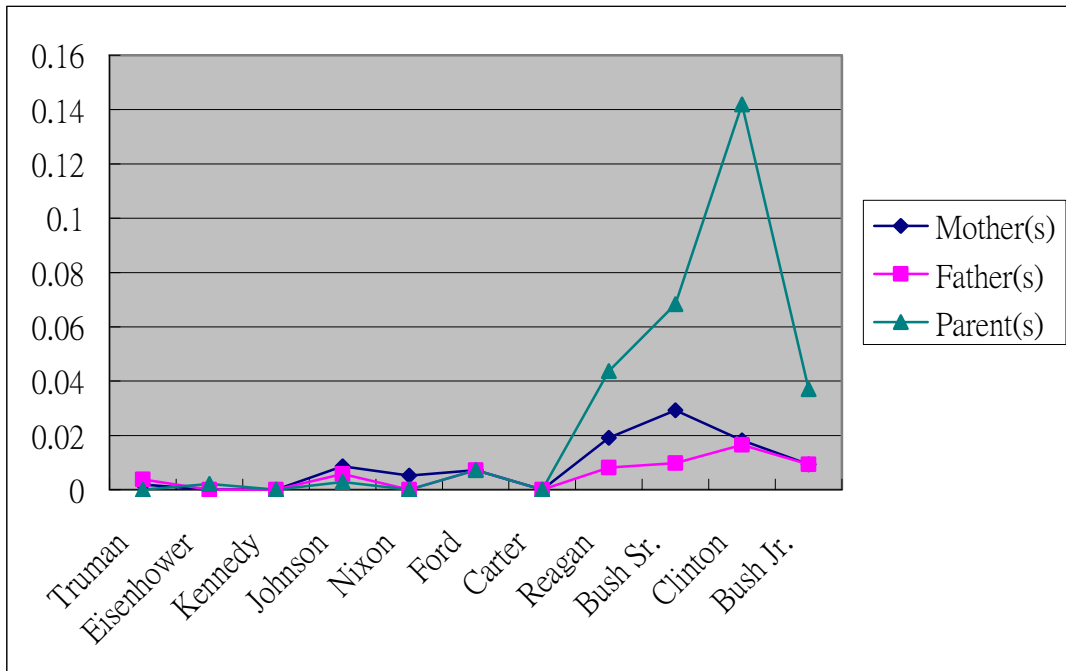


Figure 8. Percentage of occurrences of father(s), mother(s), and parents

5. Discussion

In a recent tribute to Betty Friedan, Ellen Goodman [2006] noted that in 1963, Adlai Stevenson told her graduating class at Radcliffe that their education would be important when raising their children. In 1964, the year Friedan's *The Feminist Mystique* was released in paperback, Goodman was working in a gender-segregated research pool at *Newsweek*. And on August 26, 1970, the day women marched down New York's Fifth Avenue to strike for equality, Goodman recalls the front page of the newspaper she worked for showing two pictures of women: "On the left was was the pretty, blond, smiling figurehead of some unknown group of Happy Homemakers. On the right was Betty Friedan, mouth open in mid-shout, face contorted, as unattractive a photo of this woman as was ever chosen by any editor. Under both pictures ran a simple, loaded question: Which one do you choose?" Which one, indeed?

We can see from the data presented here that language use relating to gender changed dramatically in presidential speeches in the time period between 1965 and 1975, with frequent occurrences of biased language use before 1970. If we contrast the language that was used in presidential speeches prior to 1970 with the situation on the ground, we can see that the use of *man* and *mankind* to stand for all human beings reflects a gender-bias in the society and in the workplace that we would nowadays consider completely unacceptable. Yet, at the time, it was

the status-quo.

What, then are the implications for the language use that occurs in current presidential speeches? What implications, for example, can be drawn from the continued use of 'mankind' by recent Republican presidents? Is the use of *mankind* simply a reflection of the interaction between the constraints of stress on multisyllabic words and oratory (*i.e.* 'mankind' is easier to say than 'humankind'), in addition to being an issue of frequency (*i.e.* *mankind* occurs more often than *humankind*)?¹² Or is the continued use of *mankind* by Republican presidents indicative of what Lakoff [1996, 2002] calls "Strict Father Morality" of the conservatives?

6. Conclusion

Wodak [2004] notes that "in-depth analyses in empirical data (newspapers, interviews, parliamentary debates) contribute to our theorizing on genre and persuasive language strategies." In addition, we would like to suggest that collecting empirical data, such as presidential speeches, into a diachronic corpus will allow meaning change to be charted over time. This, in turn, will allow corresponding legislative and social events to be contrasted with the linguistic terminology used by politicians.

In this paper, we hypothesized that the language used by politicians would become more inclusive from 1945 to 2006. In some aspects, it certainly did. There was a marked decline in the use of *man* to refer to all people, with a similar decrease in the term *mankind* to refer to all humankind, although its usage still occurs even today. However, references to women did not emphasize the contributions that women have made to society. In the eyes of the presidents, they are still struggling for equal pay and equal rights. Lastly, discussion of issues relating to parenting showed a slight increase in the past twenty years. However, the use of *mother(s)* and *father(s)* did not yet demonstrate the variety of roles that each parent plays in the family and society. Thus, the gains American women have made over the past half a century are not yet reflected in the eyes of the American presidents.

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¹² Jonathan Evans, personal communication, December 4, 2005.

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