

The Making of Female Presidents and Prime Ministers: The Impact of Birth Order, Sex of Siblings, and Father-Daughter Dynamics

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Although research into the factors that may affect male achievement of political leadership is relatively robust, very few studies on the making of female presidents and prime ministers exist. This paper examines the literature on birth order, sex of siblings, and parent-daughter dynamics to see whether the findings for male political leaders—that first-born individuals will be overrepresented as compared with later-born siblings—also hold for female ones. Two other hypotheses were tested concerning differences in birth order and sex of siblings between female political leaders and a larger sample of women. A review of the literature on parent-daughter dynamics suggests that this may be another important variable for future research into explanations for the success of women who achieve senior-level positions of power. The findings suggest that first-born women, like first-born men, are overrepresented among political leaders; that first-born women are overrepresented among female political leaders as compared with their numbers in a larger sample population; and that fewer female political leaders have an older brother than would be expected to occur in a larger sample population. The last finding applies only for women who came to power in the period 1960–1989, not those who gained office more recently.

KEY WORDS: female presidents and prime ministers, birth order, sex of siblings, parent-daughter dynamics.

Since 1960, there have been 41 women who have served as president or prime minister of their respective states,¹ and their numbers are increasing. In the 1950s,

¹ This total does not include two female prime ministers from Bermuda, three from the Netherlands Antilles, and one female president from the Bosnian Serb Republic. The group studied here is limited to leaders of sovereign, independent states that are either members of the United Nations or participate in its various agencies (i.e., Switzerland).

there were no female presidents nor prime ministers; three came to office in the 1960s, five in the 1970s, and seven in the 1980s (Adler, 1997, p. 178). Twenty-six women became president or prime minister for the first time in the decade of the 1990s—more than in all previous decades (see Table I).

Notwithstanding the recent growth of their numbers, female political leaders are still vastly outnumbered by their male counterparts. In Blondel's (1980) study of world leaders, only 0.5% were women (p. 116); by 2000, they still represented only a small fraction of the number of male world leaders. As Genovese (1993) observed: "Male dominance has been legitimated in law and custom. Politics or the public life of the polity has been presumed to be a natural sphere for men while for women, to the extent they had a space or turf to call their own, the 'natural' sphere was presumed to be private" (p. 2). To explain this phenomenon, scholars tend to focus on factors such as the differences in male/female biology, political socialization, gender discrimination,² or political recruitment systems³ to account for the paucity of female political leaders. This paper will not add to that literature but will follow a different exploratory avenue, investigating some of the factors that may characterize female political leaders when compared to other women.

Research Questions

Notwithstanding their diversity, do female presidents and prime ministers have certain common attributes that facilitate their accession to power? This paper will argue that birth order and sex of siblings are variables that can play an important role in the making of female presidents and prime ministers. In addition, parent-daughter relationships also seem to constitute an underlying dynamic.

My choice of these variables stemmed initially from my own observations. As a first-born with a younger sister, I was validated and encouraged by my father in my ambition to become a university professor, a male-dominated arena in the late 1950s, when most of my contemporaries were either full-time homemakers or secretaries, teachers, and nurses—traditional female jobs. I discovered that my few female colleagues were also largely first-born children who had received paternal encouragement. Over the years, I also found that there were many more first-born than later-born female students in my graduate classes. Among those who were not first-born, few had older brothers. They also spoke of the encouragement they had received from their parents.

Given my interest in political leadership, I wondered whether the seemingly greater numbers of first-born women or later-born women with no older male siblings in my graduate classes (I assumed that pursuing doctoral studies was a marker of ambition) might be observed among female political leaders as well. A

² For an excellent review of this literature, see Sigel (1996), pp. 6–22.

³ See, for example, Kenworthy and Malami (1999); Lovenduski (1997).

Table I. Female Political Leaders

Country	Name	Office	Date	Birth order	Family size	Ranking	Older brother
Sri Lanka	Sirimavo Bandaranaike	Prime minister	1960–1965, 1970–1977, 1994–2000	First	6	1	—
India	Indira Gandhi	Prime minister	1966–1977, 1980–1984	Only	1	1	—
Israel	Golda Meir	Prime minister	1969–1975	Middle	3	2	No
Argentina	Isabel Peron	President	1974–1976	Middle	5	3	No
Central African Republic	Elizabeth Domitien	Prime minister	1975–1976	(missing)	(missing)	(missing)	(missing)
Portugal	Maria de Lourdes Pintasilgo	Prime minister	1979	First	2	1	—
Bolivia	Lidia Gveiler Tejada	Interim president	1979–1980	Only	1	1	—
Great Britain	Margaret Thatcher	Prime minister	1979–1990	Last	2	2	No
Dominica	Mary Eugenia Charles	Prime minister	1980–1995	First	5	1	—
Iceland	Vigdís Finnbogadóttir	President	1980–1996	First	2	1	—
Norway	Gro Harlem Brundtland	Prime minister	1981, 1986–1989, 1990–1996	First	4	1	—
Yugoslavia	Milka Planinc	Prime minister	1982–1986	Middle	8	5	Yes
Malta	Agatha Barbara	President	1982–1987	Middle	10	2	Yes
Philippines	Corazon Aquino	President	1986–1992	Middle	5	4	Yes
Pakistan	Benazir Bhutto	Prime minister	1988–1990, 1993–1996	First	4	1	—
Lithuania	Kazimiera Prunskiene	Prime minister	1990–1991	Middle	3	2	No
Haiti	Ertha Pascal-Trouillot	President	1990–1991	Middle	10	9	Yes

Table I. Continued

Country	Name	Office	Date	Birth order	Family size	Ranking	Older brother
Myanmar (Burma)	Aung San Suu Kyi	Opposition leader ^b	1990 ^b	Last	3	3	Yes
East Germany	Sabine Bergmann-Pohl	President of the Parliament	1990	Last	3	3	Yes
Ireland	Mary Robinson	President	1990–1997	Middle	5	3	Yes
Nicaragua	Violeta Barrios de Chamorro	President	1990–1996	Middle	6	2	Yes
Bangladesh	Khaleda Zia	Prime minister	1991–1996	Middle	5	2	No
France	Edith Cresson	Prime minister	1991–1992	First	3	1	—
Poland	Hanna Suchocka	Prime minister	1992–1993	First	2	1	—
Canada	Kim Campbell	Prime minister	1993	Last	2	2	No
Burundi	Sylvie Kinigi	Prime minister	1993–1994	Middle	6	3	Yes
Rwanda	Agatha Uwilingiyimana	Prime minister	1993–1994	(missing)	(missing)	(missing)	(missing)
Turkey	Tansu Ciller	Prime minister	1993–1996	Only	1	1	—
Bulgaria	Reneta Indzhova	Interim prime minister	1994–1995	(missing)	(missing)	(missing)	(missing)
Sri Lanka	Chandrika Bandaranaike Kumaratunga	Prime minister	1994				
		President	1994 ^a	Middle	3	2	No
Haiti	Claudette Werleigh	Prime minister	1995–1996	Middle	7	4	Yes
Bangladesh	Hasina Wajed	Prime minister	1996 ^a	First	6	1	—
Liberia	Ruth Perry	Chair, Ruling Council	1996–1997	Middle	4	3	Yes
Ecuador	Rosalía Artega	President	1997	First	4	1	—
Guyana	Janet Jagan	Prime minister	1997	Only	1	1	—
Ireland	Mary McAleese	President	1997 ^a	First	9	1	—

New Zealand	Jenny Shipley	Prime minister	1997–1999	Middle	4	2	No
Switzerland	Ruth Dreifuss	President ^c	1999–2000	Last	2	2	Yes
Latvia	Vaira Vike-Freiberga	President	1999 ^a	First	3	1	—
Panama	Mireya Elisa Moscoso de Arias	President	1999 ^a	Last	10	10	Yes
New Zealand	Helen Clark	Prime minister	1999 ^a	First	4	1	—

^aStill in office.

^bParty won 1990 elections, but prevented from assuming office by a military coup.

^cSwitzerland is governed by a council of seven ministers, with the presidency rotating annually among the ministers. The president is formally elected by the Swiss parliament. Dreifuss joined the cabinet in 1993.

Source: Adapted from Adler (1996), p. 136; unpublished revision by Adler, 1997; *New York Times*, 10 December 1998; and *Zarate's Political Collections* (the worldwide web, <http://www.terra.cs/personal2/monolith>).

review of the literature in political science and psychology revealed a number of studies that explored birth order, sex of siblings, parent-daughter dynamics, and their underlying assumptions. In this paper, I examine these assumptions and how their constituent variables may affect the trajectory of female leaders into power.

Theoretical Assumptions: Literature Review

An interesting aspect of the research on birth order, sex of siblings, and parent-daughter dynamics is that much of it derives from the period 1950–1980. It is as though, having completed their initial investigations into these problems, social scientists then moved on to address other issues. But many of the insights of this research may be as valid today as they were then. Others may be limited by the time frame in which they were conducted; women (as well as men), particularly in the developed world, have come to define their options differently as a result of the profound social changes that have occurred in the last two decades. Hopefully this paper will encourage a fresh look at these issues.

It must also be noted that much of the research on birth order and sex of siblings has been undertaken by American and European scholars on the basis of their own population samples. This, of course, raises the legitimate issue of an unrepresentative sample, as well as questions about the applicability of the findings to subjects from other cultures and societies. Are these analyses more broadly applicable? Although hard empirical evidence is lacking without drawing samples across different cultural and developmental contexts, I would suggest that to the extent that we find distinct patterns of birth order, sex of siblings, and parent-daughter dynamics that appear to correlate with constraints on female ambitions and achievements, such findings are likely to be as true for women in the developing world, given the more patriarchal nature of their societies. However, as societal changes take place in the developed world that facilitate the entry of women into public roles, the forces of globalization are likely to make their presence felt in the developing world as well, albeit at a much slower pace.

Birth Order

Birth order theorists argue that position in the family is a powerful predictor of interests, style, and achievement. Evidence that first-born, middle-born, and last-born children are socialized in somewhat different ways within the family is provided by many studies reporting effects of birth order on a variety of developmental outcomes (Wagner & Schubert, 1977). A study of 386,000 Dutch soldiers revealed that intelligence declined as the number of siblings increased and as birth order within each family size increased (Belmont & Marolla, 1973). A review of birth order studies reports that the most consistent finding in birth order research

is that the first-born reaches greater educational attainment (Adams, 1972; Steelman, 1985).

Perlin and Crater (1983) found that first-born children were rated as more dominant and aggressive than middle and younger children, who were rated as more passive and submissive. First-born children were also more achievement-oriented, perhaps because of early adult-oriented styles learned when they had only the parents and no other siblings. Parents also show higher behavior and achievement-oriented expectations and aspirations for their first-born (Burden & Perkins, 1987), and their expectations decrease as the family size increases (Sputa & Paulson, 1995).

To explain the negative effect of large family size and later birth order, Zajonc and Markus (1975) developed confluence theory, which states that the family intellectual environment decreases as the number of small children in the family increases and that older children's intellectual development benefits from their teaching younger siblings. First-born individuals also have an advantage when it comes to areas of achievement. A disproportionate number of first-born people become Rhodes scholars, find their names in "Who's Who" lists, are selected as astronauts, and achieve distinction in science (Kagan, 1969).

First-born individuals, however, score as being less empathic than all later-born children. Other diagnostic tests suggest that there is a positive association for first-born and only-born individuals versus all later-born groups with respect to having higher scores on two indices of narcissism, the Millon Clinical Multiaxial Inventory and the Narcissistic Personality Inventory (Curtis & Cowell, 1993, pp. 312–314), a trait frequently found in political leaders (Etheredge, 1979; Post, 1993; Steinberg, 1996).

According to Sulloway (1996), it is natural for first-born children to identify more strongly with power and authority. They arrive first within the family and use their superior size and strength to defend their special status. Relative to their younger siblings, the first-born are more assertive, socially dominant, and ambitious (p. xiv). Individuals who had a younger brother were more competitive and assertive than those who had a younger sister. And in dyads that included a first-born girl and a later-born boy, the girls were actually more assertive than the boys (Sulloway, 1996, p. 77).

Sulloway also noted that first-born children are attracted by knowledge domains that stress certainty (such as the "hard" sciences) and that offer the potential for high achievement. Indeed, Hudson (1992) observed that the most commonly held expectation in the birth order literature is that first-born individuals will be overrepresented in "prestige" and "power" vocations such as medicine, law, and politics (p. 142).

For the first-born, the desire to wield political power is merely a variant of that power with which the individual becomes familiar as a child in a family context. An individual's first experience with power is at the receiving end—as a helpless infant in the care of its parents. As the child matures and asserts his or her own

independence, clashes over power and authority with the parents will occur. If the child has siblings, a rough power hierarchy will be worked out over time with them in which the younger children will be forced to bend their will to the orders and values of the eldest child (Stewart, 1977, pp. 209–210; Sutton-Smith & Rosenberg, 1970).

Although birth order theorists expect to find a higher proportion of first-born and middle-born individuals in high office relative to only-born or last-born persons, few females have been included in the samples studied. First-born males have been found overrepresented among world leaders (Hudson, 1990, 1992; Stewart, 1977), Australian prime ministers (Newman & Taylor, 1994), and U.S. presidents (Stewart, 1977; Wagner & Schubert, 1977), state governors (Newman & Taylor, 1994), and senators and representatives (Forbes, 1971; Zweigenhaft, 1975). However, it is unclear from this literature whether this results from birth order, or merely reflects the comparative population size of each of the four groups. Because the population of last-born individuals is approximately equivalent to the number of first-born people, if the members of one of these groups emerge more often in national leadership positions than those of the other group, one may feel greater confidence in ascribing this to the differential effects of birth order (Hudson, 1990, pp. 588–589).

In a study of 55 world political leaders⁴ that updated an earlier study of the impact of birth order on 46 world leaders, Hudson (1992, pp. 148–149) found that, on the basis of a straightforward coding system of birth order,⁵ there were 13 “first-born” individuals (28.3%), five “only-born” individuals (10.8%), 22 “middle-born” individuals (47.8%), and six “last-born” individuals (13%).⁶ As Hudson correctly observed, meaningful observations about these data are impossible unless there is some notion as to whether these percentages are different, in a statistically significant manner, from those that would obtain in the general population. But surveys of populations asking for birth order as a variable are rare [a few exceptions are to be found in the United States; see Sweet et al. (1988) and the General Social Survey (GSS) database archived at the University of Michigan’s Inter-university Consortium for Political and Social Research (ICPSR)], and researchers have therefore relied on the power of reason to estimate the percentages of each birth order in a population.

Assuming a normal distribution, the numbers of first-born and last-born individuals should be roughly equal and the number of middle-born should probably

⁴ There were seven leaders for whom no data could be found. As well, I eliminated the two female leaders so that I could compare Hudson’s findings on male world leaders with mine on female political leaders. This left an *N* of 46.

⁵ In this coding, no special treatment is accorded to the spacing of the children or their gender (i.e., a child born more than 5 years after an elder sibling is not considered to be a first-born, nor is a son born after an eldest sister considered a first-born).

⁶ These percentages are marginally different from those actually reported by Hudson, which include the two female political leaders.

be greater than either. But even here confounding factors may be present. For example, any changes in the fertility rate will affect percentages of persons found to be of particular birth orders. If, for example, the frequency of marriages increases in the population, more first-born children will be produced; when the frequency of marriage drops, more later-born births will occur (Hudson, 1992, p. 143).

In the same study, Hudson also noted that first-born children may be over-represented in the middle and upper social classes because of the smaller family size associated with higher socioeconomic status. And, because it might be presumed that world leaders will come from the ranks of the middle and upper classes, it may simply be that first-born individuals “ought” to be overrepresented in her sample on statistical grounds (Ernst & Angst, 1983; Schooler, 1972). But if world leaders do not come from small families, then one might justifiably argue that an “artificial control population” constructed for the purposes of comparison with Hudson’s sample should not contain a surplus of first-born children (Hudson, 1992, p. 144). It can also be argued that in some nations the rich have smaller families, whereas in other cultures, having numerous children is a tangible expression of wealth and social power, or a sign of obedience to and favor from God (Hudson, 1992, p. 143). Because of the difficulty of empirically assessing the expectation that certain birth orders would be overrepresented in her sample of world leaders, Hudson posited an artificial control population based on a U.S. National Survey of Families and Households (which interviewed randomly selected Americans during 1987–1988) but noted that such a comparison can only be regarded as suggestive, not confirmatory.

Hudson’s (1992) findings regarding her 46 male world leaders (see Table II) support the expectations of birth order theory, which strongly suggest that first-born individuals are more likely than last-born individuals to be found in office (see also Galton, 1874; Rejai & Phillips, 1984; Stewart, 1977). When these figures were compared with an artificial control population, the numbers of only-born, middle-born, and last-born individuals are represented at roughly the level one might expect; it is the number of first-born that are overrepresented in her sample of male political leaders. This paper explores the question of whether the same findings apply equally to female political leaders.

Table II. Distribution of Birth Order for Hudson’s (1992) Sample of Male Political Leaders and for a Larger Population Group

Birth order	Sample of male leaders (<i>N</i> = 46)	Artificial control population (<i>N</i> = 7,665)
Only	5 (10.8%)	763 (10.0%)
First	13 (28.2%)	1,263 (16.5%)
Middle	22 (47.8%)	3,976 (51.9%)
Last	6 (13.0%)	1,663 (21.7%)

Note. The percentage figures for the sample of male leaders are slightly different from those provided by Hudson (1992, p. 149, table 6.2, BO1) because the two female leaders included in her calculations were dropped from mine.

The Sex of Siblings

Another potentially significant predictor of interests, style, and achievement is the sex of siblings. Not having an older brother may provide an opportunity structure for women. In infancy, the absence of older brothers facilitates paternal involvement with daughters. In later years, their absence removes an important obstacle to female political participation: a male who is supposed to act on her behalf (Kelly & Boutillier, 1978, p. 440).

Komarovsky (1953) suggested the importance of the male sibling in the formation of “feminine” role attitudes.⁷ She noted how parents, relatives, and friends treat little boys differently from little girls—how they signal in hundreds of subtle ways the differences they expect between the sexes. The girls were expected to be more restrained and sedentary in their play, and gentler and more demonstrative in their demeanor, than boys.

Fathers tend to play more with infant sons than with infant daughters, particularly after the first birthday (Biller, 1981). And this pattern may be magnified if the elder-born is a son. The significance of having a brother is made even more explicit with respect to matters of independence and kinship obligation. Girls who had brothers, particularly older brothers, were given fewer opportunities for independent action. Many of the college students surveyed by Komarovsky (1953) expressed considerable bitterness when they reported the ways in which they were treated differently from their brothers.

Retesting Komarovsky’s findings, Kammeyer (1967) found that in two-sibling families, having a brother (either older or younger) did not result in a girl having a more “feminine role” orientation. In fact, girls with a brother or brothers, particularly girls with an older brother(s), tended toward “masculinity” in their psychological and behavioral traits (Brim, 1958, p. 12). Lynn (1969) also argued that girls with brothers are likely to develop a more “masculine” sex-role preference and behavioral pattern than girls without brothers (pp. 84–88). Because masculinity is usually associated with political behavior, Kelly and Boutillier (1978) hypothesized that a higher percentage of achieving political women would have brothers than the non-political women. Their cross-national study revealed quite the opposite. In their sample, none of the elected/personal efficacy group had older brothers. The groups having older brothers were the traditional private women and the elected/mediated women.⁸

⁷ I recognize the potential minefield that accompanies the use of terms such as “feminine” or “masculine,” given the challenges that have been mounted to the literature on sex roles (based on their changing definitions and varied global content) and the emergence of the concept of “gender” (seen as a principle organizing social arrangements, behavior, and cognition) as a new perspective on maleness and femaleness. For an in-depth discussion of these issues, see Bem (1993); Hess and Ferree (1987); Klenke (1996), pp. 135–163; Macoby (1987).

⁸ Elected/personal efficacy women are women who began their political careers at a very young age without any push from their husbands; traditional private women are those who had devoted their lives

What might account for these seemingly disparate findings? It is possible that girls with brothers in the 1950s learned the traditional “feminine” sex role (more efficiently and more effectively), but by the time they reached college they rejected it and replaced it with an orientation that combined “masculine” interests and attributes. Rejection of the traditional “feminine” role by some of the girls with brothers may also have been an overreaction to the early socialization experience (Kammeyer, 1967, p. 498) and a precursor to a more assertive cohort of women who are becoming sensitized to issues of gender discrimination (Sigel, 1996).

But for some women, the sense of powerlessness and inhibition that comes from having an older brother still remains in the 1990s, and can be difficult to surmount. In a study exploring the effect of sibling order on adults’ self-perception of interpersonal power, Todd, Friedman, and Steele (1993) found that white men and black women were relatively unaffected by siblings, whereas white women’s and black men’s perceptions of their power were affected by their opposite-sex siblings. Specifically, older sisters of younger brothers rated themselves as very high in power, whereas younger sisters of older brothers rated themselves as very low in power and conducted themselves in ways that matched their self-perceptions.

Kammeyer found that adolescent girls from two-sibling families were treated differently as a function of their birth position, whereas boys were not. Fathers as well as mothers were more involved in a positive, supportive manner with adolescent girls if they occupied particular birth positions. In interactions with first-born girls, parental involvement and support were found to be high for those with sisters. However, in the present sample, there were no first-born female political leaders from two-sibling female families.

In two-sibling families with a younger brother, parental involvement with the older daughter was found to be relatively low. Again, the data from my research reveal no examples of female political leaders fitting this profile. For second-born girls, parental support was deemed to be high for those with brothers. Having had a son, the parents can then enjoy their second-born daughter (Kammeyer, 1967). In my study, one leader fit this profile of older brother, younger sister: Ruth Dreifuss of Switzerland.

Low parental involvement was also found for a second-born daughter with an older sister in two-sibling families. It has been suggested that the reason the younger sister in these families receives considerably less parental attention is because she has to bear the brunt of her parents’ disappointment at not having a son (Kammeyer, 1967). However, two female leaders in my sample fitted the profile of younger sister with an older sister in a two-sibling family—Margaret Thatcher (Great Britain) and Kim Campbell (Canada). Being the second daughter with an older

to their husbands and family—politics was salient to them only because it was important to their political husbands; elected/mediated women are those who were elected to political office after they became involved in politics because of their husbands’ previous involvement (Kelly & Boutillier, 1978, p. 421).

sister may produce a strenuous effort to command the attention of the father; this was certainly true for Margaret Thatcher, whose idol and mentor was her father. But the reverse pattern may operate as well. Often, the mother “adopts” the first daughter, so the father is “left” with the second daughter as his only possible remaining protégée and thus courts her assiduously.⁹

Overall, then, as the literature suggests, parents without a first-born son seem less likely to discourage their daughters from pursuing careers traditionally reserved for men. The daughters become “honorary sons” and the recipients of the parental attention and guidance an older brother would otherwise receive.

Parent-Daughter Dynamics

Just as many male political figures had strong identifications with their mothers (e.g., Woodrow Wilson, Lyndon Johnson, Richard Nixon, Bill Clinton), many female leaders, irrespective of birth order and despite the presence of older male siblings, have also experienced very powerful bonds with their fathers.¹⁰ Such women have tended to come from families where much was expected, where opportunities for personal development abounded, and where the male figure encouraged or pushed the daughter to move beyond role limitations (Radin, 1986, p. 77).

The influence that fathers exert on their daughters’ cognitive development is complex and ambiguous; there is little evidence, for example, that paternal nurture or the sheer quantity of interactions between fathers and daughters is positively linked to the girls’ intellectual growth. Rather, girls’ intellectual functioning appears to be stimulated by paternal strictness in the context of warmth, by a moderate level of emotional distance between their fathers and themselves, and by a sense of autonomy vis-a-vis their fathers (Radin, 1986, p. 80).

Fathers who are challenging and somewhat abrasive raise the most socially competent, independent, and intrinsically motivated daughters (Baumrind, 1978). Social confidence in girls appears to be inhibited rather than enhanced by unconditional approval and passive acceptance. Assertive, independent behavior in daughters is associated with firmness and demands for mature behavior by both parents, especially by fathers (Rule, 1991). A longitudinal study of parents and their children concluded that exposure to vigorous, demanding interaction with parents, particularly fathers, along with the receipt of rewards for acts of independence and achievement, may save girls from the “compassion trap,” in which they become conforming and lacking in self-determination (Baumrind, 1978, p. 189).

⁹Thanks to an anonymous reviewer of an earlier version of the manuscript for this perceptive observation.

¹⁰This is true of most women who have achieved political success at the subnational level as well. See Astin and Leland (1991), pp. 42–47.

These conclusions are consistent with the data collected in other studies of adult women. Women who achieve a high level of success are likely to have had a strong relationship with a father who accepted his daughter's femininity, but expected her to be persistent and competent (Biller, 1981). High-achieving women may choose careers that are traditionally male as part of a wish to establish or maintain closeness with their fathers (Nadelson, 1994, p. 509). A study of senior female managers as compared to lower and middle managers found that the high-achieving women were either only children or first in a family of girls (Hennig, 1974).

In a subsequent examination of the 25 women enrolled in the MBA program at the Harvard Business School in 1963–1964, a consistent pattern to their family histories emerged: 20 were either eldest or only children; five were not first-born, but their experiences were essentially similar to those of a first-born child (because of the death of an older sibling, divorce, etc.). All had extremely close relationships with their fathers and had been involved in an unusually wide range of traditionally masculine activities in the company of their fathers, beginning when they were very young. Each woman had a close relationship with her father, who exposed her to masculine experiences that later helped her compete and survive in the almost exclusively male world of senior management (Hennig & Jardim, 1977, pp. 76–83).

Parental dynamics may also affect a daughter's career aspirations. Using biographical information and questionnaires, Kelly and Boutillier (1978, pp. 422–430) found that mothers with high scores on an index of independence both within the family structure and outside the home were more likely to have had daughters who had been elected to high public office as a result of their own initiative. Mothers who scored low on this index of independence were more likely to have daughters who remained in the traditional private realm. As well, mothers of publicly elected women from different parts of the world were more likely to have been treated by their husbands as equal human beings than the mothers of daughters who pursued a more private lifestyle. Such men are also more likely to have treated their daughters in the same way, contributing to their confidence and self-esteem, thus making their public roles possible (Kelly & Boutillier, 1978, pp. 422–430).

A woman's career choices may also be influenced by a perception of her mother as a role model (Nadelson, 1994). Mothers who confine themselves to the job of homemaker provide traditional role models for their daughters. Studies of college students indicate that daughters of working mothers are more likely to pursue a profession (Almquist & Angrist, 1971; Baruch, 1972) and to aspire to careers in areas previously dominated by men (Crawford, 1978; Tangri, 1972).

However, the societal transformations of the last two decades, particularly in the developed world, are creating a larger cohort of career women enjoying success in a wide range of activities previously considered to be traditional, male-dominant occupations. This, in turn, is creating different patterns of socialization for their daughters as well as offering non-traditional maternal role models. As increasing

numbers of women achieve senior-level positions in industry, the professions, the universities, politics, etc., it begins to seem more likely that their daughters will be socialized into similar kinds of self-expectations.¹¹ As a consequence of changing societal norms and the impact of feminist thinking, even those women who continue to be full-time homemakers, or who have part-time jobs rather than professions, may still have daughters who aspire to careers in the public arena.

Theoretical Assumptions

As the above review shows, findings on male world leaders support the expectations of birth order theory, which strongly suggest that first-born individuals are more likely to be found in office and last-born persons less likely. What this study will test is whether the same findings apply to female political leaders, as compared both to male leaders and to female sample populations. The two hypotheses are as follows:

Hypothesis 1: First-born women will be as overrepresented among female political leaders as are first-born men among male political leaders.

Hypothesis 2: First-born women will be overrepresented among female presidents and prime ministers as compared with their numbers in a larger sample population.

With regard to the variable of sex of siblings, the preceding literature review and related discussion argued that parents who do not have first-born sons are less likely to discourage daughters from pursuing careers traditionally considered as suitable for men, such as politics. The hypothesis is as follows:

Hypothesis 3: Fewer female presidents and prime ministers will have an older brother than occurs in a larger sample female population.

Finally, a brief examination of some of the literature on parent-daughter dynamics was included in this paper because I believe that the underlying theoretical assumptions are important and could explain some of our findings on the role that birth order and sex of siblings plays. However, because it was empirically difficult at this time to obtain information from the sample population of women or from many of the female presidents and prime ministers concerning the nature of their relationships with parents,¹² none of these theoretical assumptions have

¹¹ For a somewhat different perspective, see Sinclair (1998, p. 30), who argued that ambivalence about successful working mothers remains; daughters may experience their mothers' preoccupation with their careers, rather than their children, as rejection, which can produce a loss of self-esteem. It may also stimulate these daughters to choose less demanding jobs for themselves in order to be more available for their children.

¹² Biographical and autobiographical materials as well as responses to questionnaires I sent to the female presidents and prime ministers provided me with some information for about half the female political leaders. This evidence, albeit limited, does provide anecdotal support for the proposition that female political leaders view their fathers' high performance expectations, in conjunction with their fathers' firmness and interest, as of critical importance in developing their self-confidence and their abilities.

been tested in formal hypotheses. This would be an intriguing task for future research; however, this paper focuses on the three hypotheses stated above.

Methodology

To test the three hypotheses, I gathered data about all the female presidents and prime ministers who came to power as the leaders of independent states from 1960 to 1999. Although small in number—41—this population is a complete one, not a sample of a larger subset. Information concerning their birth order and sex of siblings was obtained for 38 of these women. Sources used were biographies, autobiographies (in the few instances where these exist), information obtained from embassy officials, press secretaries, presidential and prime ministerial offices, and personal correspondence with a number of presidents and prime ministers. The statistical tests were run on this subgroup of 38 female leaders.

To test for the strength of the birth order hypothesis, I compared this population to two groups: a sample of male presidents and prime ministers for whom there is comparable birth order information, and a larger sample of women derived from the 1988–1991 GSS, which was administered to 5,907 respondents. This questionnaire collected data about family size as well as sibling order; the data for these years were chosen over the cumulative data for the years 1972–1994 because it was only in that specific questionnaire that respondents were asked about sibling order.¹³ Given the “artificial” nature of this sample, however, findings based on a comparison between this group of women and female leaders must be treated as preliminary.

Results and Discussion

Hypothesis 1 states that first-born women were just as likely to be overrepresented among presidents and prime ministers as were first-born men. A comparison of my findings on female presidents and prime ministers to those of Hudson’s (1992) study of male presidents and prime ministers (Table III) reveals that the incidence of only-born male and female political leaders is markedly similar (10.8% versus 10.5%), but the overrepresentation of first-born female leaders is larger than for their male counterparts (34.2% versus 28.2%). What might explain a difference of this size? Because women traditionally have been more constrained

¹³The ICPSR data set was chosen for a number of practical as well as methodological reasons. We were not able to get sufficient information on the survey used by Hudson (1990). Her data were derived from the National Survey of Families and Households, a survey of randomly selected Americans performed in 1987 and 1988. This strengthened our confidence in using the ICPSR GSS as a credible alternative, because it is also administered to randomly selected Americans and covers a much longer period (ICPSR surveys have been administered for the past 25 years). However, the survey data provide at best an “artificial” control population.

Table III. Distribution of Birth Order for Samples of Male and Female Political Leaders and for Women in the Artificial Control Population, and Proportions of Women with Older Brothers

Birth Order	Sample of male leaders (<i>N</i> = 46)	Sample of female leaders (<i>N</i> = 38)	Women in control population (<i>N</i> = 513)		
		Total	With older brothers	Total ^a	Expected to have older brothers ^b
Only	5 (10.8%)	4 (10.5%)	—	23 (4.5%)	—
First	13 (28.2%)	13 (34.2%)	—	124 (24.2%)	—
Middle	22 (47.8%)	15 (39.5%)	9 (23.6%)	228 (44.4%)	162 (31.6%)
Last	6 (13.0%)	6 (15.7%)	4 (10.5%)	138 (26.9%)	82 (16.0%)

^aFor the question regarding the number of older siblings in the GSS, the total number of female respondents is 513 women out of a total 928 respondents (only a small proportion of the overall 5,907 respondents received the question). One-tailed *z* test, $z = 1.412$, significance level .078.

^bThe total number of women in the control population with older siblings is $513 - (23 + 124) = 366$. Calculations were then made on the basis of the statistical probability of respondents with one older sibling having an older brother (.50) and the probability of respondents with seven siblings or more having an older brother (.88).

in their choice of careers than men, one could speculate that among those women who achieve a leadership role, there would be more first-born women, as they tend to be more assertive and ambitious than their younger sisters. This difference may be less marked among first-born male leaders and their younger male siblings, as achievement expectations may be quite similar for both groups.

Part of what only-born and first-born male and female world leaders have in common is that they have no older siblings. But, as a number of birth order theorists argue, even if a boy has an older sister, he should be considered as a first-born because of the expectation that he will exhibit many of the characteristics of a first-born child. It is only if he has an older brother that he is deemed to fall into a different category, either middle-born or last-born. In other words, running parallel to the birth order hypothesis of an overrepresentation of first-born individuals in leadership positions is an implicit notion of the salience of the absence of an older sibling, particularly a male one. For women, competing with an older sibling—especially a brother—can be expected to be that much more difficult than it is for men, for the reasons discussed. Thus, it is not surprising that just as first-born female leaders are overrepresented relative to first-born male leaders, middle-born female leaders are less well represented relative to middle-born male leaders (39.5% versus 47.8%).

Table III also compares the results from the database of female political leaders against a control population. Only-born and first-born women are overrepresented (44.7%, versus 28.7% for the control population). Last-born and middle-born women are underrepresented (55.2%, versus 71.3% for the control population). A

one-tailed z test attempted to determine whether first-born and only-born women were significantly overrepresented in the female leaders' data. The result was $z = 1.412$ at a .078 level of significance. As this is an artificial control population derived from a U.S. survey, given recent demographic trends in the United States, it overstates the number of first-born and only-born women compared to a world population sample. If a world population sample had been used, the level of significance would have been lower than .078.

When total fertility rates were averaged for 198 U.N. member states for the period 1990–1995, the global average was 3.74 births per woman as compared to American fertility rates for the same period, which averaged 2.1 births per woman according to the *Demographic Yearbook of the United Nations*, 1996. Because there are actually fewer first-born and only-born individuals in the global population, the overrepresentation that we have observed among female political leaders is actually more pronounced than our comparison suggests. This provides stronger confirmation for Hypothesis 2, that first-born women will be overrepresented among female presidents and prime ministers as compared with their numbers in a larger sample population.

Among the 228 middle-born women in the control population, 162 (31.6%) can be expected to have an older brother, whereas among the 15 middle-born female political leaders, nine (23.6%) have an older brother (Table III). Among the 138 last-born women in the control population, 82 women (16.0%) can be expected to have an older brother, whereas among the six last-born female political leaders, four (10.5%) have an older brother. Aggregating these proportions (Table IV) yields a 13-point difference—47.6% of the control population can be expected to have an older brother, versus 34.2% of the political leaders. A one-tailed z test confirms these results and yields a value of 1.592 that approaches statistical significance at .055. Thus, the results provide support for Hypothesis 3, that female presidents and prime ministers are less likely to have had older brothers than women in the sample population.

If these numbers are broken down according to the period during which a female leader first comes to power, an interesting phenomenon is revealed. In the period 1960–1989, 15 women achieved power. Of the 14 leaders for whom information is available, only three had older brothers. In the decade of the 1990s, 26 women achieved power. Of the 24 leaders for whom we have information, 10

Table IV. Presence and Absence of Older Brother for Women in the Artificial Control Population and for Female Political Leaders

	Artificial control population ($N = 513$)	Female leaders, 1960–1999 ($N = 38$)	Female leaders, 1960–1989 ($N = 14$)	Female leaders, 1990–1999 ($N = 24$)
Older brother	244 (47.6%)	13 (34.2%)	3 (21.4%)	10 (41.6%)
No older brother	269 (52.4%)	25 (65.8%)	11 (78.5%)	14 (58.3%)

had older brothers. Table IV shows a sizable difference in the percentage of women in the control population with older brothers (47.6%) versus female leaders who came to power from 1960 to 1989, only 21.4% of whom have older brothers. A *z* test confirms these results and yields a value of 1.933 that is significant at the level of .026. These results provide strong support for Hypothesis 3—that is, female leaders of this time period are less likely to have older brothers than women in a sample population. However, there is a much smaller difference between the control population and female leaders who came to power from 1990 to 1999, 41.6% of whom have older brothers. Thus, Hypothesis 3 is not supported for this recent period.

Why should this hypothesis be disconfirmed for the decade of the 1990s? The ongoing transformation in societal values—spawned in part by the growing number of women in the work force, feminist writings about gender discrimination, and the evolution of mass telecommunication and media that promote a more dynamic image of women—has resulted in increasing numbers of women, particularly in the developed world, moving into traditional male-dominant professions such as the military, senior corporate management, surgery, law enforcement, etc. (Adams & Yoder, 1985, p. 43; Klenke, 1996, pp. 4–5). Nor has the field of politics been exempt from this general trend. In this evolving social context, parents seem increasingly supportive of ambitious and achievement-oriented daughters who may be more encouraged to emulate and compete with their older brothers. It also suggests that much of the literature on the effects of birth order and sex of siblings may be outdated and that new research in this area is needed that would also address the differences in the developing world.

Conclusions

As hypothesized, first-born female leaders, like first-born male leaders, were found to be overrepresented at the top level of political power. Moreover, first-born women were more preponderant among female leaders than first-born men were among male leaders. Given the difficulties that women have traditionally endured in pursuing high-level political careers, it is perhaps not surprising that the more ambitious and assertive among them—the first-born—would be the group that is more strongly represented, and that middle-born female leaders would be less well represented as compared with middle-born male leaders.

If, as the birth order literature suggests, first-born women (like first-born men) are likely to be more determined and aggressive than their later-born siblings, it would be interesting to observe whether they are more likely to come to office in time of war, or to serve in a period characterized by domestic and international crises. Using the same logic, we might also expect middle-born women to come to power and to serve in time of peace rather than war, and to make better use of diplomacy than their first-born counterparts. Is there, in fact, a correlation between birth order and certain types of political roles, such that eldest-born women are

more likely to be bullies, middle-born women to be diplomats, and last-born women to be revolutionaries?¹⁴ Providing answers to these questions would be a pertinent research task for a subsequent study.

Although the findings of this paper suggest that female political leaders who came to power before 1990 are far less likely to have had an older brother than the sample population of women, the cohort of female leaders in the 1990s are almost as likely to have had an older brother as the sample population—not significantly less likely as hypothesized. A possible explanation for this phenomenon is that changing societal norms and the impact of feminist thinking have generated expectations by women that they can successfully aspire to senior political roles, notwithstanding the presence of an older brother.

Strong father-daughter relationships and the encouragement given to daughters to seek positions of leadership, even in the context of an older male sibling (34% of female leaders had an older brother), may constitute an important variable in the profiles of successful female political leaders. But the available evidence is limited. An appropriate research task would require the preparation of a detailed questionnaire to be sent to all female presidents and prime ministers, in order to delineate father-daughter dynamics. The size of such a sample could be increased by adding female foreign ministers or cabinet officials. The same questionnaire could then be administered to a larger random sample of women in order to assess whether meaningful differences between the two groups exist.

For the next generation of female leaders, what also needs to be investigated is the impact that an increasingly large number of active and successful female professionals will have on their daughters' professional aspirations. Will having a mother who pursues a career increase the likelihood that her daughters will aspire to a position of leadership? Or will women view their successful mothers somewhat ambivalently, and prefer to expend their energies in non-demanding jobs that might allow more time for husbands and children? Research in this area would call for the collection of data about the number of career mothers among the group of female political leaders and the larger sample of women in order to assess whether there is a significant difference between the two groups.

Implementing the proposed research agenda would add to our limited knowledge about what fosters female achievement of senior political office and how those variables may change over time. Hopefully, this study will stimulate other researchers to focus their attention on the growing number of senior political women and the factors promoting their ascent to power.

¹⁴I am indebted to Margaret Hermann for these provocative ideas expressed during discussion of an earlier version of this paper at the annual meeting of the International Society of Political Psychology, June 1998. See also Stewart (1977) for his suggestion that different birth positions will be correlated with distinctive leadership styles.

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REFERENCES

- Adams, B. N. (1972). Birth order: A critical review. *Sociometry*, 35, 411–439.
- Adams, J., & Yoder, J. (1985). *Effective leadership for women and men*. Norwood, NJ: Ablex.
- Adler, N. J. (1996). Global women political leaders: An invisible history, an increasingly important future. *Leadership Quarterly*, 7, 133–161.
- Adler, N. J. (1997). Global leadership: Women leaders. *Management International Review*, 37, 171–196.
- Almqvist, E., & Angrist, S. (1971). Role model influences on college women's career aspirations. *Merrill-Palmer Quarterly*, 17, 263–279.
- Astin, H. S., & Leland, C. (1991). *Women of influence, women of vision*. San Francisco: Jossey-Bass.
- Baruch, G. K. (1972). Maternal influences upon college women's attitudes toward women and work. *Developmental Psychology*, 6, 22–37.
- Baumrind, D. (1978). Reciprocal rights and responsibilities in parent-child relations. *Journal of Social Issues*, 34, 179–189.
- Belmont, L., & Marolla, F. A. (1973). Birth order, family size, and intelligence. *Science*, 182, 1096–1111.
- Bem, S. L. (1993). *The lenses of gender: Transforming the debate on social inequality*. New Haven, CT: Yale University Press.
- Billar, H. B. (1981). The father and sex role development. In M. E. Lamb (Ed.), *The role of the father in child development* (2nd ed., pp. 319–358). New York: Wiley.
- Blondel, J. (1980). *World leaders. Heads of government in the post-war world*. Beverly Hills, CA: Sage.
- Brim, O. G., Jr. (1958). Family structure and sex role learning by children: A further analysis of Helen Koch's data. *Sociometry*, 21, 1–16.
- Burden, R. L., & Perkins, R. (1987). Birth order: Some possible effects on children's perceptions of themselves and their siblings. *Educational and Child Psychology*, 4, 35–45.
- Crawford, J. D. (1978). Career development and career choices in pioneer and traditional women. *Journal of Vocational Behavior*, 12, 129–139.
- Curtis, J. M., & Cowell, D. R. (1993). Relation of birth order and scores on measures of pathological narcissism. *Psychological Reports*, 72, 311–315.
- Ernst, C., & Angst, J. (1983). *Birth order and the family system*. New York: Springer-Verlag.
- Etheredge, L. (1979). Hard-ball politics. *Political Psychology*, 1, 3–26.
- Forbes, G. B. (1971). Birth order and political success: A study of the 1970 Illinois general elections. *Psychological Reports*, 29, 1239–1242.

- Galton, F. (1874). *English men of science: Their nature and nurture*. London: Macmillan.
- Genovese, M. (1993). Women as national leaders: What do we know? In M. Genovese (Ed.), *Women national leaders* (pp. 211–218). Newbury Park, CA: Sage.
- Hennig, M. (1974). Family dynamics and the successful woman executive. In R. B. Kundsinn (Ed.), *Women and success: The anatomy of achievement* (pp. 88–93). New York: Morrow.
- Hennig, M., & Jardim, A. (1977). *The managerial woman*. New York: Anchor/Doubleday.
- Hess, B. B., & Ferree, M. M. (1987). Introduction. In B. B. Hess & M. M. Ferree (Eds.), *Analyzing gender: A handbook of social science research* (pp. 9–30). Newbury Park, CA: Sage.
- Hudson, V. M. (1990). Birth order of world leaders: An explanatory analysis of effects on personality and behavior. *Political Psychology, 11*, 584–601.
- Hudson, V. M. (1992). Birth order and personal characteristics. In E. Singer & V. M. Hudson (Eds.), *Political psychology and foreign policy* (pp. 135–161). Boulder, CO: Westview.
- Kagan, J. (1969). Peer and sibling influences. In I. L. Janis, G. F. Mahl, J. Kagan, & R. R. Holt (Eds.), *Personality* (pp. 541–545). New York: Harcourt, Brace and World.
- Kammeyer, K. (1967). Sibling position and the feminine role. *Journal of Marriage and the Family, XX*, 494–499.
- Kelly, R. M., & Boutillier, M. A. (1978). Mothers, daughters, and the socialization of political women. *Sex Roles, 4*, 415–443.
- Kenworthy, L., & Malami, M. (1999). Gender inequality in political representation: A worldwide comparative analysis. *Social Forces, 78*, 235–268.
- Klenke, K. (1996). *Women and leadership: A contextual perspective*. New York: Springer-Verlag.
- Komarovsky, M. (1953). *Women in the modern world*. Boston: Little, Brown.
- Lovenduski, J. (1997). Women and party politics in Western Europe. *PS: Political Science and Politics, 30*, 200–202.
- Lynn, D. B. (1969). *Parental and sex-role identification*. Berkeley, CA: McCutchan.
- Macoby, E. (1987). The varied meanings of “masculine” and “feminine.” In J. M. Reinisch, L. A. Rosenblum, & S. A. Sanders (Eds.), *Masculinity/femininity: Basic perspectives* (pp. 227–239). New York: Oxford University Press.
- Nadelson, C. C. (1994). Women leaders: Achievement and power. In R. A. Nemiroff & C. A. Colarusso (Eds.), *New dimensions in adult development* (pp. 502–513). New York: Basic Books.
- Newman, J., & Taylor, A. (1994). Family training for political leadership: Birth order of United States state governors and Australian prime ministers. *Political Psychology, 15*, 435–442.
- Perlin, M., & Crater, H. (1983). The relationship between birth order and reported interpersonal behavior. *Journal of Youth and Adolescence, 12*, 22–28.
- Post, J. M. (1993). Current concepts of the narcissistic personality: Implications for political psychology. *Political Psychology, 14*, 607–625.
- Radin, N. (1986). The influence of fathers on their sons and daughters. *Social Work in Education, 8*, 77–92.
- Rejai, M., & Phillips, K. (1984). *World revolutionary leaders*. New Brunswick, NJ: Rutgers University Press.
- Rule, W. R. (1991). Birth order and sex as related to memories of parental strictness-permissiveness. *Psychological Reports, 68*, 908–909.
- Schooler, C. (1972). Birth order effects: Not here, not now. *Psychological Bulletin, 78*, 161–175.
- Sigel, R. S. (1996). *Ambition and accommodation: How women view gender relations*. Chicago: University of Chicago Press.
- Sinclair, A. (1998). *Doing leadership differently*. Melbourne: Melbourne University Press.
- Sputa, C. L., & Paulson, S. E. (1995). Birth order and family size: Influences on adolescents’ achievement and related parenting behaviors. *Psychological Reports, 76*, 43–51.

- Steelman, L. C. (1985). A tale of two variables: A review of the intellectual consequences of sibship size and birth order. *Review of Educational Research, 5*, 353–386.
- Steinberg, B. S. (1996). *Shame and humiliation: Presidential decision-making on Vietnam*. Pittsburgh and Montreal: University of Pittsburgh Press and McGill University Press.
- Stewart, L. (1977). Birth order and political leadership. In M. G. Hermann (Ed.), *A psychological examination of political leaders* (pp. 206–236). New York: Free Press.
- Sulloway, F. J. (1996). *Born to rebel: Birth order, family dynamics and creative lives*. New York: Pantheon.
- Sutton-Smith, B., & Rosenberg, B. G. (1970). *The sibling*. New York: Holt, Reinhart and Winston.
- Tangri, S. S. (1972). Determinants of occupational role innovation among college women. *Journal of Social Issues, 28*, 177–199.
- Todd, J., Friedman, A., & Steele, S. (1993). Birth order and sex of siblings effects on self-ratings of interpersonal power: Gender and ethnic differences. *Individual Psychology: Journal of Adlerian Theory, 49*, 86–93.
- Wagner, M. E., & Schubert, H. J. P. (1977). Sibship variables and the United States presidency. *Journal of Individual Psychology, 33*, 78–85.
- Zajonc, R. B., & Markus, G. B. (1975). Birth order and intellectual development. *Psychological Review, 82*, 74–88.
- Zweigenhaft, R. (1975). Birth order, approval seeking and membership in Congress. *Journal of Individual Psychology, 31*, 205–210.