

APPENDIX 1

A1.1 Brief Career Synopses of Marine Le Pen, Giorgia Meloni, and Alice Weidel

Marine Le Pen

Marine Le Pen assumed leadership of France's National Front (Front National, FN) in 2011, inheriting a party founded by her father, Jean-Marie Le Pen, in 1972 with explicitly neo-fascist roots (Snipes & Mudde, 2020, p. 439). Her tenure (which formally ended in 2022) was characterized by a normalization campaign aimed at distancing the party from its extremist origins. This strategic repositioning, termed "de-demonization" (*dédiabolisation*) by scholars, culminated in her expulsion of her father from the party in 2015 after he repeated his infamous Holocaust-minimizing statements, and in the party's rebranding to Rassemblement National (National Rally) in June 2018 (Snipes & Mudde, 2020, p. 439). Media coverage increasingly framed her as "France's (Kinder, Gentler) Extremist," emphasizing her efforts to distance herself from her father's "explicit racism" and anti-Semitism in favor of a more "respectable" and "electable" image (Snipes & Mudde, 2020, p. 453). Le Pen has competed in three presidential elections (2012, 2017, 2022). In the 2022 runoff, she received 41.45% of the vote, marking the highest vote share for a nationalist candidate in French Republican history. Her success in mainstreaming far-right discourse on immigration and national identity has fundamentally restructured French political competition, establishing the National Rally as the primary opposition.

Giorgia Meloni

Giorgia Meloni's involvement in politics began at age 15 with the Italian Social Movement (MSI), a neo-fascist party founded by Mussolini's supporters, where she rose through its youth organizations before the party's transformation into the post-fascist National Alliance in the 1990s. In 2012, she co-founded Brothers of Italy following a split from Silvio Berlusconi's center-right coalition, establishing a nationalist-conservative party that maintained clear links with Italy's post-fascist tradition. Under her leadership, Brothers of Italy grew from 4% of the vote in 2018 to 26% in 2022. Raised by her mother in Garbatella, a working-class area of southern Rome, after her parents separated, Meloni spent her formative years in an environment where "the party's youth associations served as almost the only available channels of socialization, debate and leadership formation in the rather closed world of the MSI/AN" (Donà, 2024, p. 155). By 2022, Brothers of Italy received 25.9% of the vote, making Meloni not only Italy's first female prime minister but also the first leader with direct post-fascist lineage to govern a major Western European democracy since World War II.

Alice Weidel

Alice Weidel joined Alternative for Germany shortly after its founding in 2013, when it was a Eurosceptic party. Trained as an economist, she holds a doctorate in China's pension system and previously worked at Goldman Sachs and the Bank of China. Her rise within the party coincided with the AfD's evolution from a primarily economic protest party to a broader nationalist movement centered on immigration restriction. Despite living in a same-sex, interracial partnership, she has "never rejected her party's homophobia" because "she knows that would only serve to make her unpopular" (Amann & Becker, 2017). As co-leader with Tino Chrupalla

since 2022 and the party's candidate for chancellor in 2025, Weidel has positioned the AfD as a mainstream political force. The apparent contradiction between her personal biography and party ideology arguably serves a normalizing function, projecting an image of modernity that obscures the party's substantive record on women's issues.

A1.2 Leadership Traits, General Meaning, and Coding Examples

Leadership traits	General meaning	Coding (Dyson, 2023, p. 217)
Belief in the ability to control events (BACE)	Perception of having control and influence over situations and developments	Number of verbs used that reflect action or planning for action of the leader versus the group
Need for power (PWR)	Aspiration to control, influence, or impact other actors	Number of verbs that reflect actions of attack, advise, influence the behavior of others, concern with reputation
Conceptual complexity (CC)	Ability to perceive nuances in one's political environment	Number of words reflecting high complexity (e.g., "approximately," "possibly," "trend") to words reflecting low complexity (e.g., "absolutely," "certainly," "irreversible")
Self-confidence (SC)	Sense of self-importance as well as perceived ability to cope with one's environment	Number of references used such as "my," "myself," "I," "me," and "mine," which show the speaker perceives self as the instigator of an activity versus references to a group as the instigator of an activity
Task focus or orientation focus (TASK)	Focus on problem solving or group maintenance/relationships	Number of words related to instrumental activities (e.g., "accomplishment," "plan," "proposal") versus concern for relationships (e.g., "appreciation")
Distrust of others (DIS)	Tendency to suspect or doubt the motives and deeds of others	Number of words and phrases that indicate misgivings or suspicions about others, especially the belief that they intend to harm the speaker or speaker's group (e.g., "deceitful," "criminal," "unlawful," "undermine," "exploit," "deception," "behind our back")
In-group bias (IGB)	Tendency to value (socially, politically, etc. defined) groups and place a specific group front and center	Number of references to the speaker's group that are favorable (e.g., "successful," "prosperous," "capable") or that express a need to maintain group identity (e.g., "decide our own policies," "defend our borders")

Table A1: Leadership Traits, Definitions, and Coding Examples

Source: Based on Brummer (2022) and Dyson (2023)

A1.3 Additional Details on Source Selection

Speeches and press conferences were sourced primarily from the parties' official YouTube channels and, where available, from major news broadcasters' YouTube channels. The distribution of speeches is relatively equal across years, except for 2020, when some leaders had no observations due to the COVID-19 pandemic, which restricted public events and limited the availability of relevant speeches or press conferences.

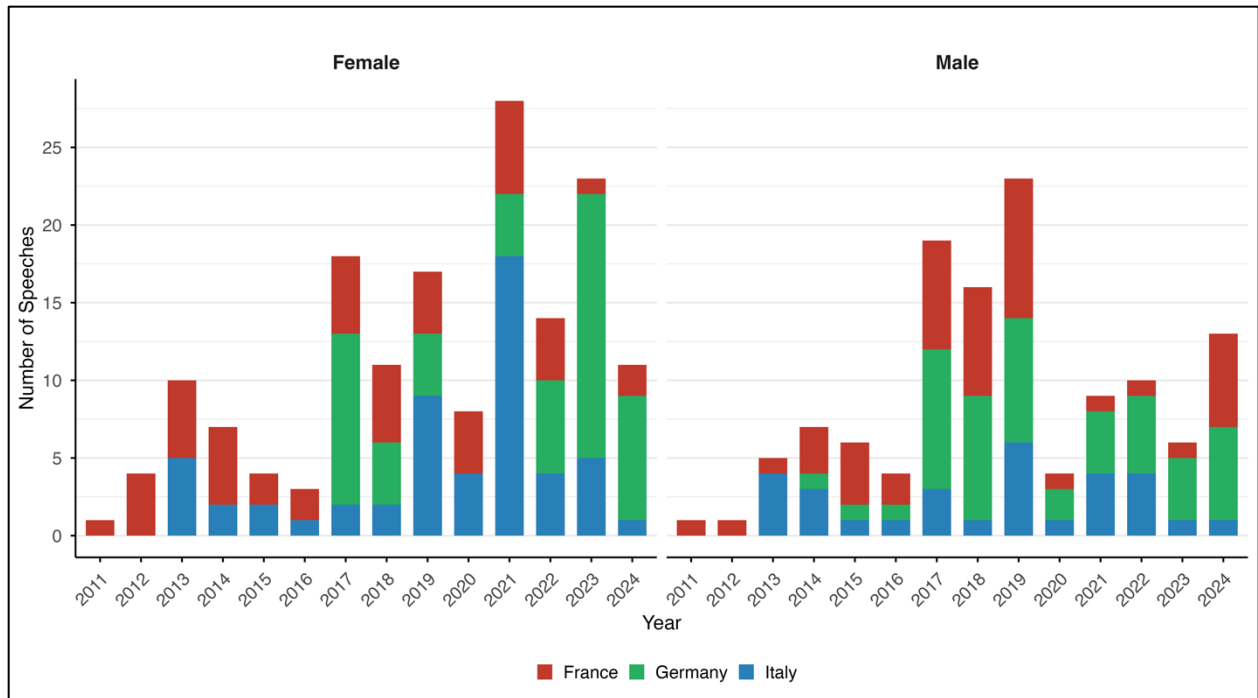


Figure A1: Distribution of Speeches Across Time

A1.4 Transcription and Verification Procedures

YouTube transcripts were used when available, as prior research has shown that automated transcription from YouTube performs comparably to human coding for political text in English, German, and French (Proksch et al., 2019, p. 342). When automated YouTube transcripts were unavailable, the videos were transcribed using an automated speech recognition system implemented in Python (source code available upon request). To ensure the reliability of the transcriptions, approximately 10% of speeches from each country were randomly selected for manual cross-referencing with the original audio recordings. For German and French speeches, this was conducted by the authors, whereas for Italian, a native Italian speaker verified the sample. No substantive discrepancies were identified that would affect the LTA output.

A1.5 Speech Selection Criteria by Country

Rassemblement National (RN): Single Leadership

Male counterparts were selected based on their standing within the party hierarchy, particularly those with visibility or authority that could enable them to compete for leadership roles or influence succession. Although Marine Le Pen formally stepped down as party leader in 2022, she continues to exert significant de facto power within the party, while Jordan Bardella holds the formal leadership title. In March 2025, Le Pen was convicted of embezzling European Parliament funds and sentenced to a five-year ban from holding public office, jeopardizing her potential candidacy in the 2027 presidential election (France 24, 2026). Our dataset concludes before this conviction and therefore captures her speeches during the period when she remained the party's dominant figure and likely presidential candidate.

Fratelli d'Italia (Fdl): Single Leadership

Male counterparts were selected from among senior party founders, ministers, and parliamentary leaders based on their standing within the party hierarchy and potential influence on succession or leadership competition.

Alternative for Germany (AfD): Collective Leadership

Our dataset spans speeches by Alice Weidel from 2014 to 2024, including years before she held a formal leadership role, when she was nonetheless a prominent public figure and later co-chair of the AfD parliamentary group in the Bundestag (2017–2021). Male counterparts include Tino Chrupalla (co-leader since 2019), as well as Jörg Meuthen and Alexander Gauland, who served as federal party leaders and/or parliamentary group leaders during the same period. The co-leadership structure reflects the party's internal organization, which emphasizes decentralization and collective leadership, in contrast to the more centralized leadership commonly seen in other populist radical-right parties (Heinze & Weisskircher, 2021, pp. 263-264).

A1.6 Translation Robustness Checks

German speeches did not require translation as ProfilerPlus supports German in LTA. French and Italian speeches were translated into English using DeepL, a widely recognized translation service known for producing high-quality translations of European languages. To verify translation accuracy, the translations were double-checked by the authors, who are fluent in French. For Italian, a native Italian speaker verified the accuracy of a randomly selected subset of speeches. As an additional quantitative check, word counts between the original and translated documents were compared across the full corpus as a proxy for translation consistency. Correlation coefficients between original and translated word counts were 0.999 for both France and Italy, indicating high consistency across documents.

Language	No. of Speeches	Total Words (Original)	Total Words (Translated)	Correlation (<i>r</i>)
French	96	311040	312581	0.999
Italian	85	244377	267176	0.999

Table A2: Pearson correlation between original and translated word counts per speech in French and Italian

A1.7 Norming Groups

Male Far-Right Populist Leaders

Country	Party	Leader	Year Range of Speeches	Type of Position	Number of Speeches	Total Word Count
France	RN	Marine Le Pen	2011–2024	Party President Parliamentary Group Leader	49	211,804
France	RN	Jordan Bardella	2016–2024	Party Member Spokesperson Vice-President Acting President Party President	19	56,663
France	RN	Nicolas Bay	2013–2019	Assistant Secretary-General Secretary-General	10	23,641

France	RN	Louis Aliot	2011–2018	Vice President	6	11,120
France	RN	Sébastien Chenu	2017–2019	Party Spokesperson	5	7,961
France	RN	Julien Sanchez	2017	Party Spokesperson	2	2,520
France	RN	Aymeric Durox	2018	Party Member	1	2,280
France	RN	Florian Philippot	2014	Vice President	1	3,062
France	RN	Laurent Jacobelli	2019	Communications Director Party Spokesperson	1	466
France	RN	Steeve Briois	2019	Vice-President	1	1,047
Total France					95	320,564
Germany	AfD	Alice Weidel	2014–2024	Executive Committee Member Parliamentary Group Leader Co-Leader (Federal)	54	66,962
Germany	AfD	Tino Chrupalla	2019–2024	Co-Leader (Federal)	22	39,734
Germany	AfD	Jörg Meuthen	2015–2021	Co-Leader (Federal)	16	50,825
Germany	AfD	Alexander Gauland	2017–2021	Parliamentary Leader	10	7,123
Germany	AfD	Bernd Lucke	2014	Party Founder	1	537
Total Germany					103	165,181
Italy	FDI	Giorgia Meloni	2013–2024	Co-founder/Chamber Group Leader Party President	55	206,509
Italy	FDI	Guido Crosetto	2013–2022	Co-Founder	8	13,244
Italy	FDI	Ignazio La Russa	2013–2022	Co-Founder	6	8,300
Italy	FDI	Edmondo Cirielli	2014–2022	MP / Deputy Minister	4	4,285
Italy	FDI	Fabio Rampelli	2016–2022	Parliamentary Group Leader Vice President of Chamber	4	5,340
Italy	FDI	Francesco Lollobrigida	2021–2023	Group Leader (Chamber of Deputies) Minister of Agriculture	3	4,050
Italy	FDI	Luca Ciriani	2019–2022	Group Leader (Senate)	3	2,948
Italy	FDI	Andrea Del Mastro	2017–2021	MP / Spokesperson	1	749
Italy	FDI	Raffaele Fitto	2020	Co-Chair of ECR Group Minister for EU Affairs	1	1,593
Total Italy					85	247,018
Grand Total					283	732,763

Table A3: Overview of Number of Speeches, Total Word Count, Speech Period, and Type of Position

World Leader Sample

The values for the world leader sample (mean and standard deviations per trait) are taken from Brummer, Table 15.3 (2022, p. 244). It consists of close to 300 foreign policy leaders, including presidents, prime ministers, and foreign ministers (Brummer, 2022, p. 244). We are not aware of any publicly available source providing detailed information on the composition of this norming group, including the gender ratio or the specific individuals included. Because the sample's composition is not fully documented, we cannot rule out the possibility that it includes leaders with populist characteristics, which should be taken into account when interpreting comparisons with this benchmark.

American Women Leaders Sample

The speeches used to generate the LTA scores for the American women leaders (means and standard deviations per trait) were taken from Kesgin & McCormick (2025) via the Harvard Dataverse (Kesgin & McCormick, 2025). The sample includes 52 women who held senior political positions in the United States, such as members of Congress and cabinet members, from January 2000 to June 2022 (p. 41). The sample comprises both Democratic and Republican women,

including senators, representatives, and cabinet members (Kesgin & McCormick, 2026, p. 41). Kesgin and McCormick (2026) originally conducted an operational code analysis of these leaders (pp. 38-39) and provided the text files for each individual woman leader in their replication dataset (p. 43). The texts were reanalyzed using ProfilerPlus to generate LTA scores, ensuring methodological consistency with the LTA framework applied to the three far-right women leaders examined here. Table A4 presents the mean and standard deviation for each LTA trait in the American Women Leaders norming group.

For this norming group to serve as a baseline to disentangle the far-right populist dimension from the gender dimension, it is important that none of the women included are associated with far-right populist politics. To our knowledge, none of the 52 women leaders in the sample were associated with far-right populist movements at the time of their speeches. We are nonetheless aware of the limited generalizability between the American and European political systems and contexts, and acknowledge that direct comparisons should be interpreted with caution.

Trait	Mean	SD
Belief in the Ability to Control Events (BACE)	0.356	0.049
Need for Power (PWR)	0.272	0.048
Self-Confidence (SC)	0.299	0.064
Conceptual Complexity (CC)	0.573	0.052
Task Focus or Orientation Focus (TASK)	0.579	0.092
In-Group Bias (IGB)	0.111	0.040
Distrust of Others (DIS)	0.130	0.056

Table A4: American Women Leaders Norming Group: LTA Trait Means and Standard Deviations
Note: LTA scores computed using ProfilerPlus on text files from Kesgin and McCormick (2026). Sample comprises 52 American women political leaders (Democratic and Republican) in national office from January 2000 to June 2022. The following 52 leaders are included: Kelly Ayotte, Michele M. Bachmann, Judy Biggert, Diane Black, Marsha Blackburn, Suzanne Bonamici, Barbara Boxer, Ginny Brown-Waite, Maria Cantwell, Shelley Moore Capito, Elaine Chao, Hillary Rodham Clinton, Susan Collins, Diana DeGette, Betsy DeVos, Elizabeth Dole, Joni Ernst, Anna Eshoo, Dianne Feinstein, Marcia Fudge, Tulsi Gabbard, Gabrielle Giffords, Kirsten Gillibrand, Kay Granger, Kamala Harris, Kay Bailey Hutchinson, Amy Klobuchar, Mary Landrieu, Barbara Lee, Blanche Lincoln, Cynthia Lummis, Carolyn McCarthy, Claire McCaskill, Cathy McMorris Rodgers, Cynthia McKinney, Juanita Millender-McDonald, Candice Miller, Barbara Mikulski, Lisa Murkowski, Patty Murray, Janet Napolitano, Nancy Pelosi, Condoleezza Rice, Lucille Roybal-Allard, Loretta Sanchez, Jan Schakowsky, Kathleen Sebelius, Jeanne Shaheen, Louise Slaughter, Olympia Snowe, Debbie Stabenow, Elizabeth Warren, Debbie Wasserman Schultz, Maxine Waters.

A1.8 Calculations of Z-Scores

The LTA comparisons are based on standardized z-scores that indicate how far each leader's trait score deviates from the norming groups' averages in standard deviation units. Previous literature using LTA has categorized results into seven levels based on standardized z-scores. Scores of ± 2.0 SD or more are classified as very high or very low, scores between ± 1.0 SD and ± 2.0 SD are classified as high or low, scores between ± 0.5 SD and ± 1.0 SD are classified as lean high or lean

low, and scores within ± 0.5 SD are classified as average (Fouquet & Brummer, 2023, p. 16; Dyson, 2023, p. 219).

The z-score for each leader on each trait was computed using the following formula:

$$z = \frac{\bar{X}_{\text{leader}} - \bar{X}_{\text{norming}}}{SD_{\text{norming}}}$$

where:

$\bar{X}_{\text{leader}}$ = mean trait score for the individual leader

$\bar{X}_{\text{norming}}$ = mean trait score for the norming group

SD_{norming} = standard deviation of the trait score for the norming group

For example, to compare Alice Weidel's self-confidence (SC) score to the world leaders norming group:

$$z_{\text{Weidel,SC}} = \frac{\bar{X}_{\text{Weidel,SC}} - \bar{X}_{\text{worldleaders,SC}}}{SD_{\text{worldleaders,SC}}}$$

This standardization indicates how far each leader's trait score deviates from the norming group average in standard deviation units.

A1.9 Trait Stability Across Time

To assess the stability of LTA trait scores over time, Figure A2 plots annual mean scores for each leader and their male counterparts across the full time period. The plots show broad stability across all seven traits, consistent with LTA's assumption that leadership traits remain relatively stable over time (Hermann, 1999/2002; Young, 2025). Some year-to-year variation is evident, particularly in years with fewer speeches, as expected given the smaller number of observations.

To further assess trait stability, we compared mean scores for each leader across all seven traits before and after their respective role changes: Le Pen stepping back as RN party leader when Bardella assumed formal leadership in 2022; Meloni becoming Prime Minister in October 2022; and Weidel becoming AfD co-leader in April 2022. The results indicate stability across all three leaders and all traits. The only statistically significant change is a decrease in BACE for Weidel following her appointment as AfD co-leader in April 2022 (difference = -0.107, $p = .026$), suggesting a somewhat weaker sense of personal control over events in the post-2022 period. The full results of the t-test comparing scores across periods are available upon request.

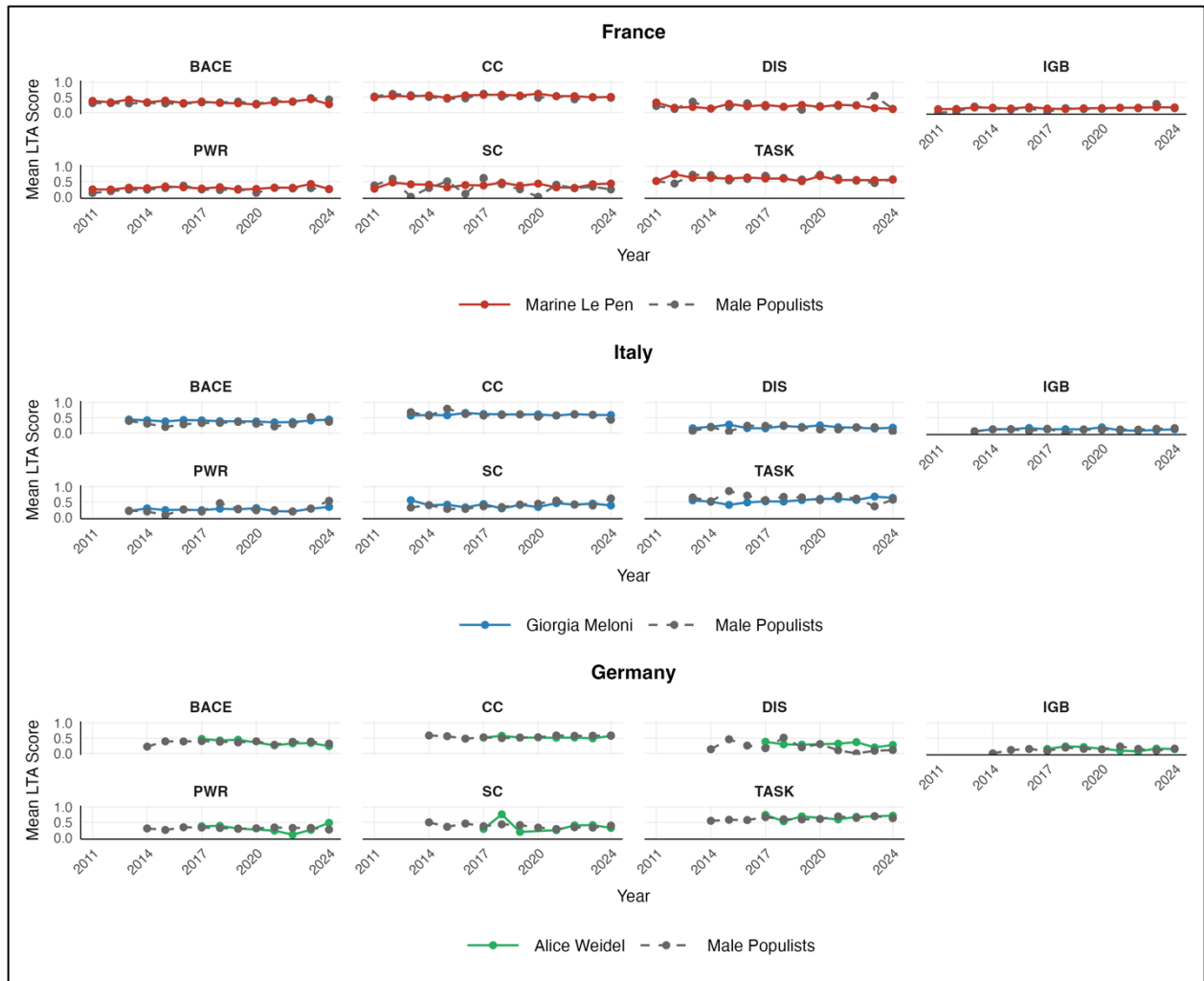


Figure A2: Annual Mean LTA Trait Scores Over Time, by Country (2011–2024)

A1.10 Aggregation and Sample Size of the Male Comparison Groups

As reported in Table A5, the number of speeches contributed by individual male leaders within each country sample varies, ranging from a single speech (e.g., Bernd Lucke, Aymeric Durox) to more than 20 (e.g., Tino Chrupalla, Jordan Bardella). The main analysis compares each woman leader to an aggregated mean across all male leaders in her country. Because trait estimates for leaders with very few speeches are based on limited verbal output, we conducted a robustness check to assess whether including these leaders distorts the aggregated male benchmark.

We reran the main analysis after excluding all male leaders who contributed fewer than three speeches. The exclusion rule was applied per country: in France, it excludes Julien Sanchez, Aymeric Durox, Florian Philippot, Laurent Jacobelli, and Steeve Briois; in Germany, it excludes Bernd Lucke; in Italy, it excludes Andrea Del Mastro and Raffaele Fitto. The remaining male leaders in each country were reaggregated, and each woman leader's z-score was recalculated against this filtered male sample. Table A5 reports, for each leader and trait, her score, her z-

score relative to the filtered male sample ($n \geq 3$), her z-score relative to the full, unfiltered male sample as reported in the main analysis, and the deviation between the two. The results confirm that after excluding male leaders with fewer than three speeches, the women leaders' relative standing remains unchanged.

	Marine Le Pen				Giorgia Meloni				Alice Weidel			
Trait	Score	vs. male ($n \geq 3$)	vs. male (full sample)	Deviation	Score	vs. male ($n \geq 3$)	vs. male (full sample)	Deviation	Score	vs. male ($n \geq 3$)	vs. male (full sample)	Deviation
BACE	0.344 (0.084)	-0.12	-0.05	-0.06	0.382 (0.070)	0.57	0.59	-0.02	0.356 (0.164)	-0.08	-0.04	-0.04
PWR	0.285 (0.087)	0.39	0.43	-0.04	0.234 (0.072)	-0.08	-0.04	-0.04	0.311 (0.203)	0.11	0.09	+0.01
CC	0.556 (0.062)	0.48	0.31	+0.17	0.593 (0.059)	-0.12	-0.12	-0.00	0.522 (0.099)	-0.31	-0.34	+0.03
SC	0.391 (0.140)	0.22	0.15	+0.06	0.431 (0.123)	0.16	0.14	+0.02	0.356 (0.264)	-0.05	-0.15	+0.10
TASK	0.609 (0.107)	0.01	0.03	-0.02	0.576 (0.099)	-0.33	-0.31	-0.02	0.687 (0.157)	0.39	0.42	-0.03
DIS	0.206 (0.097)	0.16	0.24	-0.08	0.191 (0.083)	0.35	0.36	-0.01	0.279 (0.182)	0.50	0.37	+0.13
IGB	0.147 (0.057)	0.45	0.40	+0.06	0.105 (0.060)	0.04	-0.00	+0.04	0.151 (0.118)	0.05	0.09	-0.04
Notes: Z-score = very high (≥ 2) high (≥ 1) lean high (≥ 0.5) average lean low (≤ -0.5) low (≤ -1) very low (≤ -2)												

Table A5: Comparison of Women Leaders' Z-Scores Against Filtered ($n \geq 3$) and Full Male Samples

Additional References Cited in the Supplementary Material

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