Decoding Discourse:

Gender Dynamics in German Bundestag Debates (1949-2021)

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Motivation



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"What should we do with a woman in our cabinet? (Konrad Adenauer (CDU))



Sexismus im Bundestag: Parlamentarierinnen berichten

"We made a bet. Is she wearing a bra or not?" (Richard Stücklen (CDU))



"Women were treated very strangely in the Bundestag in earlier years. According to the protocol, I was interrupted by heckling a total of 52 times in a 15minute speech. 52 times. In 15 minutes." (Renate Schmidt (SPD))

Research question: Does gender have an effect on response in parliamentary debates?

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- Female MPs initially received more applause, then experienced fluctuations, but now receive more applause again.
- Less heckles in beginning for female MPs converges to no difference between genders today.

- Gender and politics (e.g., Bäck and Debus 2016, Burkhardt 1992, Chattopadhyay and Duflo 2004, Gilligan 1993, Stopfner 2015, Thomas 1991)
- Political communication and discourse (e.g., Ash, Krümmel and Slapin 2024, Brunner et al. 2019, Edelsky and Adams 1990, Shaw 2000, Stopfner 2018, Vögele and Thoms 2019)
- Dataset compilation and empirical investigation (e.g., Blätte et al. 2017, Bundestag OpenData)

Institutional background - What changed?









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Figure 1: Amount of MPs over time

Institutional background - What stayed?



Figure 2: Parliamentary debate

- Parliamentary debates
 - Types
 - Structure
 - Interruptions

- Protocols from German Bundestag publicly accessible and prepared by Blätte et al. (2017)
- Documentation of speeches and interruptions (e.g., applause, acclamations, interposed questions, comments etc.)
- 4,290 sittings in 19 legislative periods
- 229,278 speeches by 3,763 politicians

Jan Korte (DIE LINKE):

Herr Präsident! Liebe Kolleginnen und Kollegen! Kollege Schmid, also ich kann es nicht anders sagen: So viel politischen Bullshit zu diesem Thema habe ich wirklich noch nicht gehört, und schon gar nicht um diese Uhrzeit!

> (Beifall bei der LINKEN und dem BÜND-NIS 90/DIE GRÜNEN)

Eines will ich hier in aller Klarheit sagen: Sie wissen ganz genau, dass hier im Rahmen einer Vereinbarten Debatte keine Antragsbefassung möglich ist. Also labern Sie doch nicht so einen Unsinn!

> (Beifall bei der LINKEN, der FDP und dem BÜNDNIS 90/DIE GRÜNEN)

Das ist wirklich nicht angemessen.

Kollege Grosse-Brömer, also, es ist natürlich gut, dass Sie ständig Die Linke erwähnen;

> (Michael Grosse-Brömer [CDU/CSU]: Selten positiv!)

Figure 3: Excerpt of a protocol

Descriptive statistics



Figure 4: Average interruptions per speech (1949-2021)

- Estimating effect of gender on interruption
- Gender as treatment with female politicians as treated ($d_i = 1$) and male politicians as control group ($d_i = 0$)
- Dependent variable: Number of interjections per speech according to the type t of interruption (applause or heckle)
- Potential outcome:

$$interjection_{i}^{t} = \begin{cases} interjection_{1i}^{t} & \text{if } d_{i} = 1\\ interjection_{0i}^{t} & \text{if } d_{i} = 0 \end{cases}$$
(1)

• Average Treatment Effect (ATE)

 $\tau_{ATE}(x) = E \text{ [interjection (1)|} D = 1 \text{]} - E \text{ [interjection (0)|} D = 0 \text{]}$ (2)

• Estimating effect in linear model with OLS estimator

interjection^t_i = $\beta_0 + \beta_1$ femalespeaker_i + β_2 femalespeaker_i × $lp_i + \beta_3 X_i + u_i^t$ (3)

- Control variables
 - Role, age, seniority, mandate, first speaker
 - Parliamentary group, occupation, topic of speech, timing

Regression of applause



Figure 5: Regression results for applause over legislative periods

Regression of heckles



Figure 6: Regression results for heckles over legislative periods

Next step: constellation of interruptions



Constellation of interruptions: Identification

- Identification of effect of interrupter
- Estimating effect in linear model with OLS estimator

heckle_i = $\beta_0 + \beta_1$ femalespeaker_i + β_2 interrupter^g_i + β_3 femalespeaker_i × interrupter^g_i + $\beta_4 X_i + u_i$

- Control variables
 - Role, age, seniority, mandate, first speaker
 - Parliamentary group, occupation, topic of speech, timing

(4)

Constellation of interruptions: Gender



Figure 7: Coefficients of interaction term

17

Constellation of interruptions: Gender and political affiliation

- Identification of effect of interrupter
- Division of political parties into left and right affiliation
- Estimating effect in linear model with OLS estimator

heckle_i = $\beta_0 + \beta_1$ femalespeaker^p_i + β_2 interrupter^{g,p}_i + β_3 femalespeaker^p_i × interrupter^{g,p}_i + $\beta_4 X_i + u_i$

- Control variables
 - Role, age, seniority, mandate, first speaker
 - Occupation, topic of speech, timing

Constellation of interruptions: Gender and political affiliation



Figure 8: Coefficients of interaction term

19

Thanks for your attention!

	N	Mean	Median	
Applause	185.766	4,493	3,0	
Women	42.322	4,869	4,0	
Men	143.444	4,383	3,0	
Heckles	157.891	3,488	2,0	
Women	34.723	3,268	2,0	
Men	123.168	3,550	2,0	

N = Number of observations

Heterogeneity - Parliamentary groups



Figure 9: Regression results for applause across parliamentary groups

Heterogeneity - Parliamentary groups



Figure 10: Regression results for heckles across parliamentary groups

Robustness - Subsample of speeches with response



Figure 11: Results for applause and heckles for speeches with response

Robustness - Binary coded dependent variable



Figure 12: Results for applause and heckles for binary coded outcome

Constellation of interruptions: Results for gender

	Dependent variable:				
	Heckles				
	F on F	M on F			
Speaker	-0.042	-0.389***			
	(0.061)	(0.096)			
Interrupter	-0.109**	0.109**			
	(0.055)	(0.055)			
Speaker x Interrupter	-0.347***	0.347***			
	(0.110)	(0.110)			
Observations	63.976	63.976			

Note: The unit of observation is one interruption to a speech in a parliamentary debate in the German Bundestag. The dependent variable is the amount of heckles in a speech. The columns display the four different constellations of interruptions regarding gender. The regression is performed including all control variables and fixed effects. Standard errors are denoted in parentheses. *p<0.1; **p<0.05; ***p<0.01

Constellation of interruptions: Results for gender and political affiliation

	Dependent variable:						
	Heckles						
	ML on FL	MR on FR	FR on FL	FL on FR	MR on FL	ML on FR	
Speaker	-1.174***	0.133	-1.205***	0.440***	-1.739***	0.336***	
	(0.063)	(0.106)	(0.060)	(0.103)	(0.086)	(0.101)	
Interrupter	0.051	-0.123***	0.632***	-0.044	-0.106**	0.104*	
	(0.056)	(0.046)	(0.111)	(0.054)	(0.050)	(0.055)	
Speaker x Interrupter	-0.436***	0.340*	-0.604***	-0.599***	0.814***	-0.256	
	(0.142)	(0.175)	(0.214)	(0.175)	(0.112)	(0.184)	
Observations	63.976	63.976	63.976	63.976	63.976	63.976	

Note: The unit of observation is one interruption to a speech in a parliamentary debate in the German Bundestag. The dependent variable is the amount of heckles in a speech. The columns display the six different constellations of interruptions regarding gender and political affiliation. The regression is performed including all control variables and fixed effects. Standard errors are denoted in parentheses. *p < 0.1; **p < 0.05; **p < 0.01

Back