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# Analysis of the immigration discourse in the Swedish Parliament

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# My background

- ▶ Statistician
- ▶ Postdoc in probabilistic machine learning
- ▶ Interested in text as data
- ▶ Projects
  - ▶ Welfare state analytics (Umeå University, Sweden)
  - ▶ Mining for meaning (Linköping University, Sweden)

# What happens when a radical-right party enters parliament?



Figur: Jimmie Åkesson at the 2010 election.

# Our problem

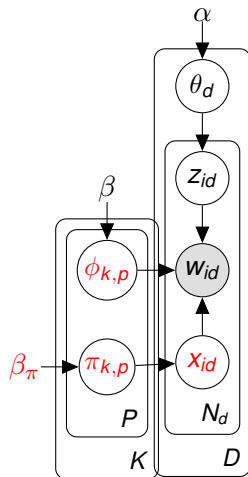
- ▶ We want to *measure* and *follow* the immigration discourse
- ▶ How is immigration described by different parties?
- ▶ Connect debates to political science theory (dismissive, accommodative, and adversarial strategies)
- ▶ Connect to communication theory
  - ▶ Agenda: *What* is being discussed?
  - ▶ “Framing”: *How* does the different parties talk about immigration?

# Corpus: Plenary speeches

- ▶ 1994 - 2017
  - ▶ 300 000 speeches
  - ▶ 1 500 speakers
  - ▶ 58 m tokens (in total 101 m) ~ 20 meter of A4 papers
  - ▶ 97 000 word types (in total 486 000)
- ▶ Curation:
  - ▶ Removed stop words
  - ▶ Removed punctuations
  - ▶ Removed rare words
  - ▶ Used symbols instead of numbers
  - ▶ Used 50 topic

# Added framing and word seeds to the LDA model

- ▶ Frames to capture perspective
- ▶ Defined immigration a priori
  - ▶ "flyktingpolitik",
  - ▶ "flykting",
  - ▶ "asyl",
  - ▶ "migrationsverket",
  - ▶ "invandringspolitik",
  - ▶ "invandrare" and
  - ▶ "integrationspolitik"

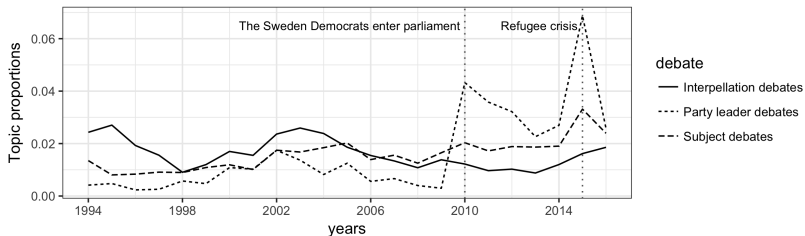


# Results: Immigration discourse in Riksdagen

Type of words	Top words (In Swedish and English translation)
Frequent	sverige, människor, ska, kommer, få, land, svenska, andra, många, finns, vill, ta, får, hit, invandrare*, uppehållstillstånd, personer, asylsökande, länder, kunna sweden, humans, shall, will, get, country, swedish, other, many, exists, wants, take, gets, here, immigrant*, residence permit, persons, asylum seeker, countries, be able
Distinct	uppehållstillstånd, migrationsverkets, asylrätten, asylskäl, asylansökan, invandrarverket, kvotflyktingar, asylprocess, asylprocessen, asylsökandes, apatiska residence permit, swedish migration agency, the right of asylum, grounds for seeking asylum, request for asylum, swedish immigration agency, ratio refugees, asylum process, the asylum process, asylum seekers, apathetic

Table 3: Top words in the immigration topic by most frequent words ( $p(w|k)$ ) and most distinct words ( $p(k|w)$ ). Seeded words are removed from distinct words and marked with \* in frequent words

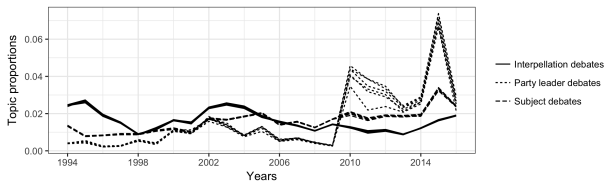
# Result: Immigration agenda



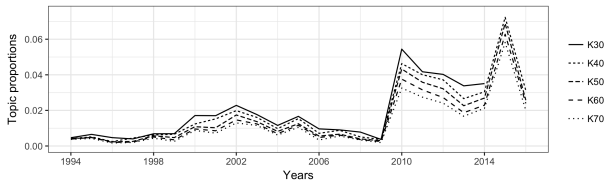
Figur: Immigration topic in Riksdagen 1994-2017



# Sensitivity analysis



Figur: Sensitivity in word seeds



Figur: Sensitivity in topics (party leader debates)

# Result: Party frames

Party	Top words (translated from Swedish)
(s)	applies, must, asylum seeker, Swedish Migration Agency*
(m)	Swedish Migration Agency*, Kalle Larsson, labour migration
(c)	Sweden Democrats, here, society, come, Centre Party
(l)	immigrant*, migration minister, refugee policy*, Liberal Party
(v)	day, government, apply, rights, human, right, asylum*
(kd)	Christian Democrats, Barbro Holmberg, generous
(mp)	back, refugees, immensely, children, Europe, send, UNHCR
(sd)	Sweden, will, immigrant*, politics, shall, immigration, Swedish

Tabell: Most probable words.