The Genitive Alternation in Varieties of English

Benedikt Heller
Overview

1. Introduction
2. Research Questions
3. Some Important Factors
   a. Animacy
   b. Givenness/Topicality
   c. Syntactic Weight
   d. Final Sibilancy
4. Data Extraction and Annotation
5. Statistical Analysis and Expected Results
Introduction

- **Exploring probabilistic grammar(s) in varieties of English around the world**
- Thesis supervised by Benedikt Szmrecsanyi (KU Leuven) and Joybrato Mukherjee (JLU Giessen)
- Other alternations
  - Dative alternation (M. Röthlisberger)
  - Particle placement (J. Grafmiller)
  - Finite/non-finite complementation (B. Szmrecsanyi)
  - ...
- Combination of the **Probabilistic Grammar Framework** and the **English World-Wide Paradigm**
Probabilistic Grammar Framework

• Explore hidden – though cognitively ‘real’ – probabilistic constraints on grammatical variation

• Three crucial assumptions

  1. syntactic variation – and change – is subtle, gradient & probabilistic rather than categorical in nature

  2. linguistic knowledge includes knowledge of probabilities, and speakers have powerful predictive capacities

  3. corpus-based regression models match speaker’s predictive abilities in precise ways
English World-Wide Paradigm

- Wide range of postcolonial VoE (ICE-9)
  - Native varieties (L1), e.g. New Zealand English
  - Second language varieties (L2), e.g. Hong Kong English
  - “language shift” varieties, e.g. Irish English
The Genitive Alternation

(1) The [spokesperson]_possessum of [the family]_possessor

(2) [The family]_possessor’s [spokesperson]_possessum

• “Today, genitive variation is arguably the best researched of all syntactic alternations in English.” (Rosenbach 2014: 215)

Thomas 1931; Sorheim 1980; Altenberg 1982; Jucker 1993; Anschutz 1997; Rosenbach & Vezzosi 2000; Rosenbach 2002, 2003; Gries 2002; Stefanowitsch 2003; Kreyer 2003; Rosenbach 2005; Hinrichs & Szmrecsanyi 2007; Szmrecsanyi & Hinrichs 2008; Szmrecsanyi 2010; Jankowski & Tagliamonte 2014; Hundt & Szmrecsanyi 2012; Szmrecsanyi 2013; Wolk, Bresnan, Rosenbach & Szmrecsanyi 2013; Grafmiller to appear, ...
Research Questions

1. To what extent do VoE share the factors that determine the choice between s-genitive and of-genitive? Where do they differ?

2. Are differences random, or can they be explained by sociohistorical factors (e.g. Schneider 2007)?

3. What is the role of modes, registers, or idiolects across VoE?
Some Important Factors

Animacy, Givenness/Topicality, Syntactic Weight, Final Sibilancy
Animacy


- Grammar books (e.g. Murphy 2012: 162f.)
-s (your sister's name) and of ... (the name of the book)

We use -s (apostrophe + s) mostly for people or animals:
- Tom's computer isn't working. (not the computer of Tom)
- How old are Chris's children? (not the children of Chris)
- What's (= What is) your sister's name?
- What's Tom's sister's name?
- Be careful. Don't step on the cat's tail.

You can use -s without a noun after it:
- This isn't my book. It's my sister's (= my sister's book)

We use -s with a noun (Tom/friend/teacher etc.). We do not use -s with a long group of words.
So we say:
- your friend's name
- the name of the woman sitting by the door

Note that we say a woman's hat (= a hat for a woman), a boy's name (= a name for a boy), a bird's egg (= an egg laid by a bird) etc.

With a singular noun we use -s:
- my sister's room (= her room – one sister)
- Mr Carter's house (= his house)

With a plural noun (sisters, friends etc.) we put an apostrophe (') at the end of the word:
- my sisters' room (= their room – two or more sisters)
- the Carters' house (= their house – Mr and Mrs Carter)

If a plural noun does not end in -s (for example men/women/children/people) we use -s:
- the men's changing room

You can use -s after more than one noun:
- Jack and Karen's wedding
- Mr and Mrs Carter's house

For things, ideas etc. we normally use of (of the water / of the book etc.):
- the temperature of the water (not the water's temperature)
- the name of the book (the owner of the restaurant)

Sometimes the structure noun + noun is possible (see Unit 80):
- the water temperature
- the restaurant owner

We say the beginning/end/middle of ... / the top/bottom of ... / the front/back/side of ...:
- the beginning of the month (not the month's beginning)
- the top of the hill
- the back of the car

You can usually use -s or of ... for an organisation (= a group of people). So you can say:
- the government's decision
- the decision of the government
- the company's success
- the success of the company

It is also possible to use -s for places. So you can say:
- the city's streets
- the world's population
- Italy's prime minister

You can also use -s with time words (yesterday / next week etc.):
- Do you still have yesterday's newspaper?
- Next week's meeting has been cancelled.

In the same way, you can say today's / tomorrow's / this evening's / Monday's etc.

We also use -s (or -'s) with plural words with periods of time:
- I've got a week's holiday starting on Monday.
- Julia has got three week's holiday.
- I live near the station – it's only about ten minutes' walk.

The garage door (noun + noun) ➔ Unit 80
A three-hour journey, a ten-pound note ➔ Unit 80D

Exercises

81.1 In some of these sentences, it would be more natural to use -s or -'. Change the underlined parts where necessary.

1. Who is the owner of this restaurant?
   OK. Chris's children

2. How old are the children of Chris?

3. Is this the umbrella of your friend?

4. Write your name at the top of the page.

5. I've never met the daughter of Charles.

6. Have you met the son of Helen and Dan?

7. We don't know the cause of the problem.

8. Do we still have the newspaper of last Monday?

9. I don't know the words of this song.

10. What is the cost of a new computer?

11. The friends of your children are here.

12. The garden of our neighbours is very nice.

13. I work on the ground floor of the building.

14. The hair of David is very long.

15. I couldn't go to the party of Katherine.

16. Do you know the number of the man I need to speak to?

17. Have you seen the car of the parents of Mike?

18. What's the meaning of this expression?

19. Do you agree with the economic policy of the government?

81.2 What is another way of saying these things? Use -s or -'.

1. a hat for a woman ➔ a woman's hat
2. a name for a boy ➔ a boy's name
3. clothes for children ➔ children's clothes
4. a school for girls ➔ girls' school
5. a nest for a bird ➔ a bird's nest
6. a magazine for women ➔ a magazine for women

81.3 Read each sentence and write a new sentence beginning with the underlined words.

1. The meeting tomorrow has been cancelled.
   Tomorrow's meeting has been cancelled.

2. The storm this week caused a lot of damage.
   Last week's storm caused a lot of damage.

3. The only cinema the town has closed down.
   The town's only cinema has closed down.

4. The weather in Britain is very changeable.
   The British weather is very changeable.

5. Tourism is the main industry the region.
   The region's main industry is tourism.

81.4 Use the information given to complete the sentences.

1. If I leave my house at 9 o'clock and drive to the airport, I arrive at about 11.
   So it's about two hours' drive from my house to the airport. (drive)

2. If I leave my house at 8.40 and walk to the centre, I get there at 9 o'clock.
   So it's from my house to the centre. (walk)

3. I'm going on holiday on the 12th. I have to be back at work on the 26th.
   So I've got 14 days' holiday. (holiday)

4. I went to sleep at 3 o'clock this morning and woke up an hour later. After that I couldn't sleep.
   So last night I only had 4 hours' sleep. (sleep)
We use -'s (apostrophe + s) mostly for people or animals:

- Tom's computer isn't working. (not the computer of Tom)
- How old are Chris's children? (not the children of Chris)
- What's (= What is) your sister's name?
- What's Tom's sister's name?
- Be careful. Don't step on the cat's tail.

You can use -'s without a noun after it:

- This isn't my book. It's my sister's. (= my sister's book)

We use -'s with a noun (Tom/friend/teacher etc.). We do not use -'s with a long group of words. So we say:

your friend's name

but the name of the woman sitting by the door

Note that we say a woman's hat (= a hat for a woman), a boy's name (= a name for a boy), an egg (= an egg laid by a bird) etc.

With a singular noun we use -'s:

my sister's room (= her room – one sister) Mr Carter's house (= his house)

With a plural noun (sisters, friends etc.) we put an apostrophe ('') at the end of the word:

my sisters' room (= their room – two or more sisters)
the Carters' house (= their house – Mr and Mrs Carter)

If a plural noun does not end in -s (for example men/women/children/people) we use -'s:

the men's room (= a room for a group of men)
We use -’s with a noun (Tom/friend/teacher etc.). We do not use -’s with a long group:
So we say:

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Note that we say a woman’s hat (= a hat for a woman), a boy’s name (= a name for a boy),
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If a plural noun does not end in -s (for example men/women/children/people) we use:

the men’s changing room a children’s book (= a book for children)

You can use -’s after more than one noun:

Jack and Karen’s wedding Mr and Mrs Carter’s house

For things, ideas etc., we normally use of (… of the water / … of the book etc.):

the temperature of the water (not the water’s temperature)
the name of the book
the owner of the restaurant

Sometimes the structure noun + noun is possible (see Unit 80):

the water temperature the restaurant owner

We say the beginning/end/middle of … / the top/bottom of … / the front/back/side of …

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the top of the hill the back of the car
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2. How old are the children of Chris?
3. Is this the umbrella of your friend?
4. Write your name at the top of the page.
5. I’ve never met the daughter of Charles.
6. Have you met the son of Helen and Dan?
7. We don’t know the cause of the problem.
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- the men's changing room a children's book (= a book for children)

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Animacy

- Big player in diachronic changes (Hinrichs & Szmrecsanyi 2007)
- Focus on possessor, but relative animacy might also be important
- Categorization
  - ANIMATE, INANIMATE (most common)
  - We use five levels: HUMAN/ANIMAL, COLLECTIVE, LOCATIVE, TEMPORAL, INANIMATE (Wolk et al. 2013)
  - Depending on size of the database
Givenness/Topicality

• If a possessor has been mentioned before, it is GIVEN (contextual determined)

Given possessors favor the s-genitive

• Automatic vs. manual approach (cf. Hinrichs & Szmrecsanyi 2007 vs. Grafmiller to appear)
Syntactic Weight

(4) *I said to my dad, “I will never ever take speed.”

(5) *I said “I will never ever take speed” to my dad.

The principle of end weight: “the tendency for long and complex elements to be placed towards the end of a clause.” (Biber et al. 1999: 898)

(6) *whatever happened on November the thirty-first nineteen ninety-two’s night.

(7) whatever happened on the night of November the thirty-first nineteen ninety-two.
Syntactic Weight

• Operationalization?

(8) whatever happened on the night of November the thirty-first nineteen ninety-two.
Final Sibilant in the Possessor

• [s], [z], [ʃ], [tʃ], [ʒ], or [dʒ]
• If a possessor ends in a sibilant, the genitive construction is less likely to be realized as s-genitive

(11) *The size of the packs
(12) *The packs’s size

• Pronunciation dictionaries (e.g. CMU Pronunciation Dictionary)
Potential Problem: Multicollinearity

- E.g. animacy and syntactic weight

(11) *From Kuhn’s particular point of view, this is mistaken*

(Baayen 2008: 182)
Extraction and Annotation
Obtaining Interchangeable Genitives

1. Search for all instances of
   a. ’s OR s’ *
   b. of

2. Filter results
   a. automatically (Perl script)
   b. manually (Web-based annotation tool)

(9) one of my children

(Rosenbach 2002: 28)
Automatic Filtering

### Dismissed Of Constructions

<table>
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<tr>
<th>No.</th>
<th>Unit marker</th>
<th>Context left</th>
<th>Node</th>
<th>Context right</th>
<th>Constraint</th>
<th>Violation</th>
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<td>1</td>
<td><code>&lt;#23:1:B&gt;</code></td>
<td>You have to spend a lot</td>
<td>of</td>
<td>money on it</td>
<td>np left</td>
<td>a lot</td>
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<tr>
<td>2</td>
<td><code>&lt;#147:1:A&gt;</code></td>
<td>Uh about three</td>
<td>But all</td>
<td>of</td>
<td>us were late</td>
<td>word left</td>
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<tr>
<td>3</td>
<td><code>&lt;#183:1:B&gt;</code></td>
<td>Ya so quite I think quite a lot</td>
<td>of</td>
<td>things to teach them even the catalogue itself</td>
<td>np left</td>
<td>a lot</td>
</tr>
<tr>
<td>4</td>
<td><code>&lt;#198:1:B&gt;</code></td>
<td>eight or nine</td>
<td>of</td>
<td>them you know that kind of thing</td>
<td>word right</td>
<td>them</td>
</tr>
<tr>
<td>5</td>
<td><code>&lt;#198:1:B&gt;</code></td>
<td>eight or nine of them you know that kind</td>
<td>of</td>
<td>thing</td>
<td>word left</td>
<td>kind</td>
</tr>
<tr>
<td>6</td>
<td><code>&lt;#200:1:B&gt;</code></td>
<td>[...] be more because we're going to have uh</td>
<td>sort</td>
<td>of</td>
<td>teach them link up line</td>
<td>word left</td>
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<tr>
<td>7</td>
<td><code>&lt;#202:1:B&gt;</code></td>
<td>so there's going to be lots and lots</td>
<td>of</td>
<td>things to do ya so and then fourth year students [...]</td>
<td>word left</td>
<td>lots</td>
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<td>8</td>
<td><code>&lt;#207:1:B&gt;</code></td>
<td>[...] staff or or you know those experts ha they</td>
<td>of</td>
<td>course I'm</td>
<td>word right</td>
<td>course</td>
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<td>9</td>
<td><code>&lt;#213:1:B&gt;</code></td>
<td>You know most</td>
<td>of</td>
<td>of the lecturers</td>
<td>word left</td>
<td>most</td>
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<td>10</td>
<td><code>&lt;#229:1:B&gt;</code></td>
<td>[...] like depends on what because different aspects</td>
<td>let's say</td>
<td>of</td>
<td>of architecture and all that you see so I wouldn't [...]</td>
<td>tag left</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
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<th>Constraint</th>
<th>Violation</th>
</tr>
</thead>
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<td>11</td>
<td><code>&lt;#14:1:B&gt;</code></td>
<td>One</td>
<td>of</td>
<td>these day I'll be speaking in broken English</td>
<td>word left</td>
<td>One</td>
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<tr>
<td>12</td>
<td><code>&lt;#19:1:C&gt;</code></td>
<td>I mean when they come uh and some</td>
<td>of</td>
<td>them lah they're from very bid schools I mean [...]</td>
<td>word left</td>
<td>some</td>
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<td>13</td>
<td><code>&lt;#38:1:C&gt;</code></td>
<td>[...] See probably we don't have we don't have that kind</td>
<td>of</td>
<td>problem lah</td>
<td>word left</td>
<td>kind</td>
</tr>
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<td><code>&lt;#42:1:A&gt;</code></td>
<td>[...] fact the bankers that I I dealt with uh</td>
<td>most</td>
<td>of</td>
<td>them are overseas graduates so they slang a bit when [...]</td>
<td>word left</td>
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<td>Which part of</td>
<td>of</td>
<td>June</td>
<td>word left</td>
<td>part</td>
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</tbody>
</table>
Manual Filtering

http://www.benedikt-heller.de/ga

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Work Plan – Major Goals

• 2014: Finish interchangeability coding for ICE-GB, ICE-India, ICE-Canada (if possible also ICE-Singapore)
• 2015: Finish interchangeability coding and factor annotation, publish preliminary results
• 2016: Statistical analysis
• 2017: Write up thesis
Statistical Analysis
Multilevel Mixed-Effects Models

Figure 1: Evolution of statistical methods in psycholinguistics and corpus linguistics

(Gries to appear: 3)
Multilevel Mixed-Effects Models

(Gries to appear: 10, 11)

• **Random effects** can account for idiosyncrasies of speakers, modes, genres, words, etc. (cf. Gelman & Hill 2007: 245f.)

• Hierarchical structure of corpora
Expected Results

(Hundt and Szmrecsanyi 2012: 258)
Bibliography 1/2


Bibliography 2/2


