Week 5. Statistical analysis

Investigating the **variants** of a phonological **variable** and correlating them with non-linguistic variables. For example, (h) is defined as a phonological variable, with variants (h)-0 (phonetic zero) and (h)-1 (phonetic [h]). Non-linguistic variables might include social class, sex, and age.

1. **H dropping**. Percentages of dropped /h/ in London schoolchildren (Hudson & Holloway 1977); by class and sex

	boys	girls
middle class	14	6
working class	81	18

2. **The *-ing* variable**. Percentages of alveolar forms in Norwich (Trudgill 1974), formal style; by class and sex

	men	women
MMC	4	0
LMC	27	3
UWC	81	68
MWC	91	81
LWC	100	97

ditto, by class and style

	word list	reading passage	formal convers.	casual conversation
MMC	0	0	3	28
LMC	0	10	15	42
UWC	5	15	74	87
MWC	23	44	88	95
LWC	29	66	98	100

3. **Bird and "boyd"** in New York City. Relates to words in list (a), not (b).
(a) *bird, nurse, first, certain, permit...* (b) *stir, her, occurred, stirring...*
Older variant [ɜɪ], newer [ɜː]. Percentages of [ɜɪ] forms in NYC (Labov, 1966), by age:

age	8-19	4
	20-39	24
	40-49	33
	50-59	59
	60+	100

4. **(ou) in Milton Keynes**. *Coat, moan* etc. (ou)-0 [oː, oʊ] Northern, Scottish etc.; (ou)-1 [ɐʊ, ɐʊ̈] older Bucks., London; (ou)-2 [æɣ] fronting; (ou)-3 [æɪ] fronting and unrounding

	(ou)-0,1	(ou)-2	(ou)-3
4-year-olds	55.7	30.2	13.5
8-year-olds	33.3	53.6	12.9
12-year-olds	28.2	68.6	3.0
caretakers	60.0	37.3	3.5