

Class 9 (Week 4, R): Sideways interfaces IV, still getting evidence

To do

- Read **Tessier & Jesney 2014** for Thursday (Oct. 29).

_____ will present T & J's arguments and proposal

_____ will assess how much of the problem T&J identify goes away under parallel OT and why

- Homework** due Thursday (Oct. 29)

Overview: More ways to find out what generalizations are real to the speaker (descriptive adequacy), and whether some generalizations are "better" than others (explanatory adequacy). Today we'll focus on choices that speakers make. Let's keep a tally on the board of which cases address which level of adequacy.

1. Poetry: evidence about weight

- What do you remember about syllable weight?

- Ryan 2011: even if a language's basic phonology makes few weight distinctions among syllables, poetry written in that language can give evidence that speakers are sensitive to many more distinctions.
- E.g., Finnish Kalevala epic poem
 - trochaic tetrameter: *strong weak strong weak strong weak strong weak*
 - word-initial syllable is stressed
 - word-initial syllable prefers to heavy if in strong position, light if in weak position
- Find the exceptions

a. vaka vanha väinämöinen 40.221

s w s w s w s w
 [va] ka [van] ha [väi] næ moi nen

b. kalanluinen kanteloinen 40.224

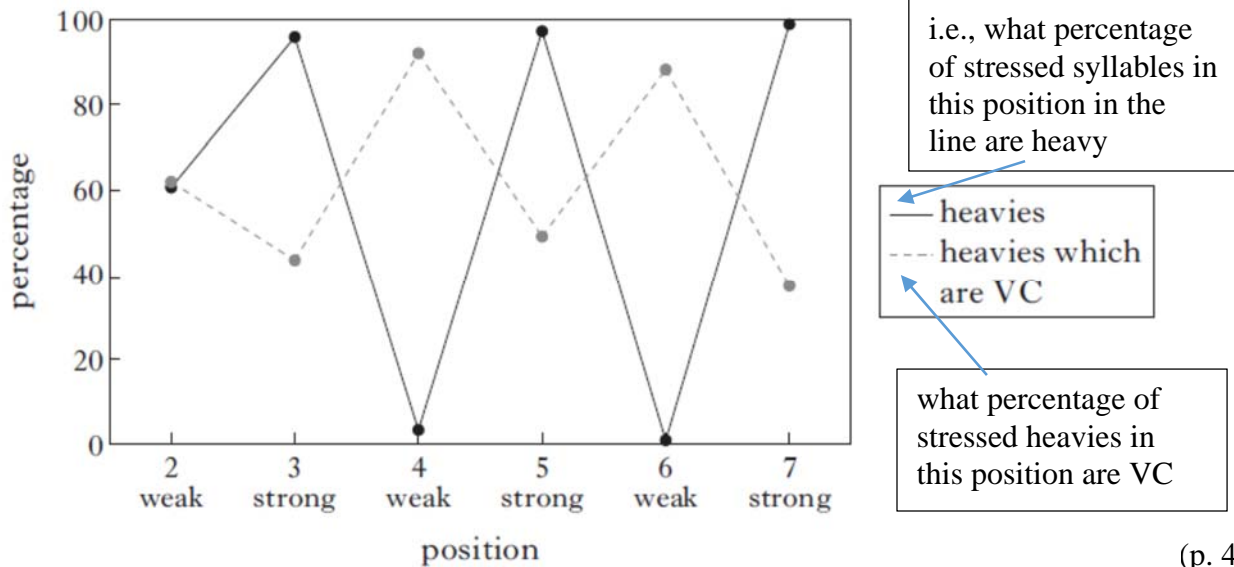
s w s w s w s w
 [ka] lan lui nen [kan] te loi nen

c. ei ollut osoajata 40.228

s w s w s w s w
 [ei] [ol] lut [o] so a ja ta

(p. 424)

- But there are many types of “heavy” rhymes: VC, VV, VCC, VVC...
- And not all are equal—discuss the figure:



(p. 426)

- This one’s even more spectacular: Middle Tamil epic poem, *Irāmāyaṇam*

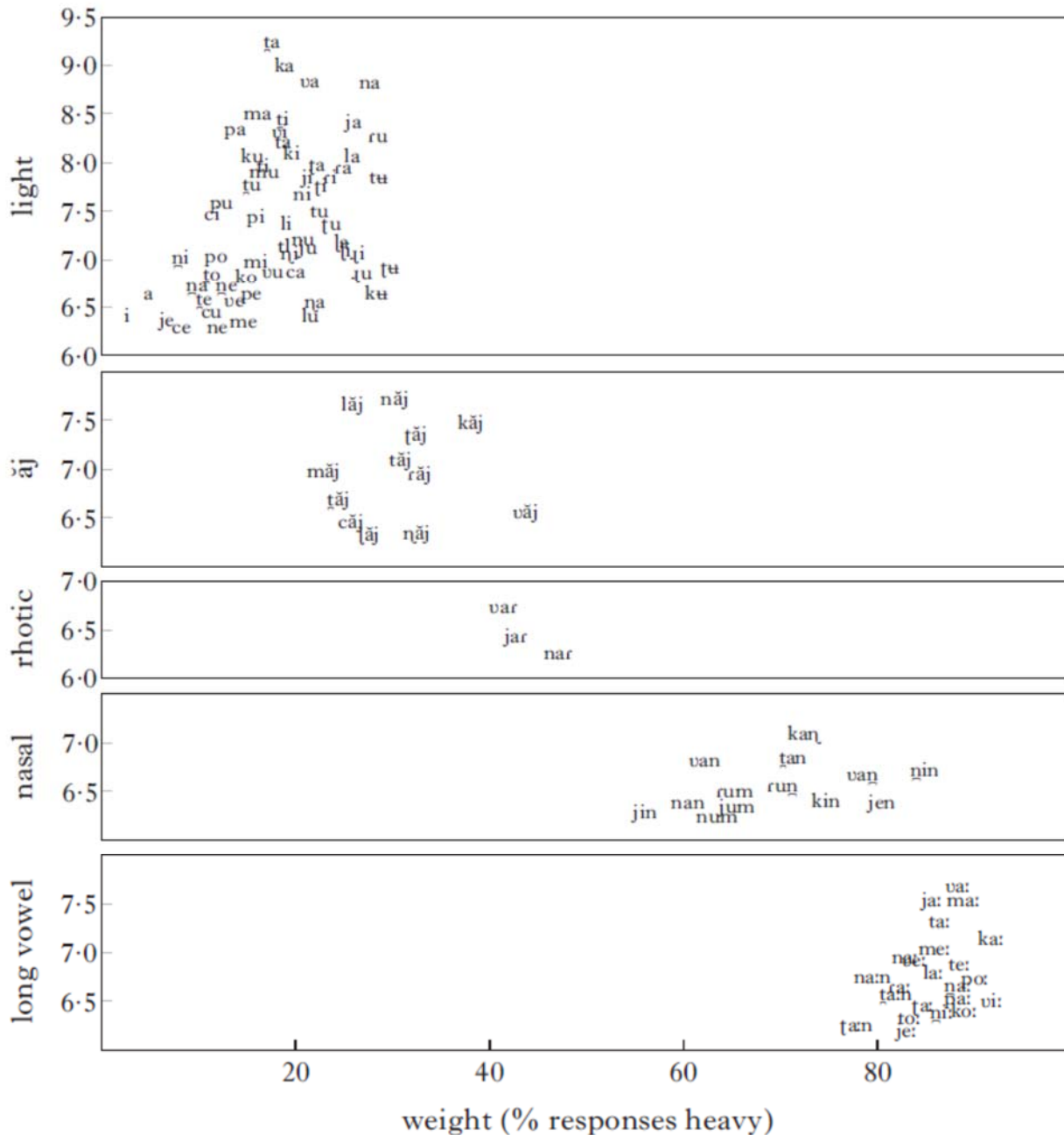
- Lines come in pairs
- The two lines are supposed to match in Heavy-Light pattern

a. ulakam ja:vājjuaṅ ṭam uḷa va:kkalum
 ṇilāḷ petuṭṭalṭ ṇi:kkalṭ ṇi:ṅkala:
LLH HLH • H LL HLH
LL LHLL • HLL HLH

b. para:param aki ninta paṇṇināḷp pa:karuva:rkal
 ṇara:pati ja:ki pinṇṭ ṇamanāḷjum velluva:re:
LHLL HL HL • HLH LLLHH
LHLL HL HL • LLLH HLHH

(p. 432)

- But are all “heavies” equally able to pair with a heavy, or all “lights” equally able to pair with a light?



(p. 435)

- The general idea, here and in the rest of today's examples:
 - Humans have limited choices about their language's core phonology
 - English speakers could learn obstruent voicing assimilation or fail to learn it, but they can't really learn obstruent voicing dissimilation, even if they'd prefer to
 - But we are free to choose to write one line of poetry rather than another, or say one sentence rather than another
 - Trends in these free choices could tell us something about our phonological preferences that aren't constrained by our native-language exposure

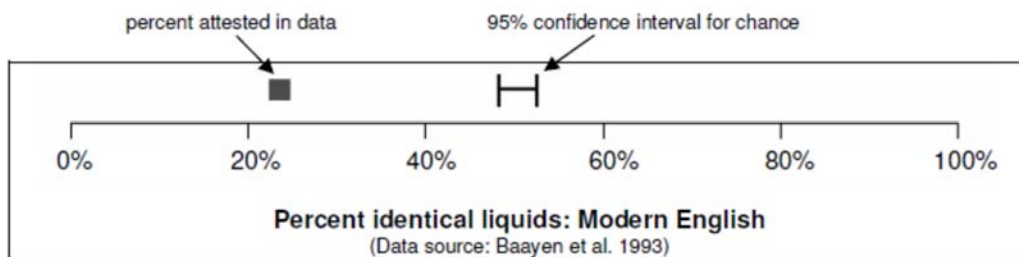
2. Names: rhythm and phonotactics

- Shih 2014, chapter 3: First name-last name pairs on facebook
 - after various cleaning, 3.3 million name types (41 million tokens)!
- Do people choose name combinations that are phonologically good?
 - “eurythmy distance”: absolute value of (how many syllables in between stress peaks, minus one)
 - Try it on these: *Súsan Smíth*, *Suzánne Smíth*, *Mélanie Fitzgérald* (pp. 48-49)
- other factors examined: adjacent sibilants, adjacent identical segments, alliteration, avoiding rhyme
- It would be hard to plot raw data (see Shih for regression models and partial-effects plots), but all of the phonological predictors contributed significantly to a name’s frequency and/or probability of existence.

3. Coinages, names: phonotactics

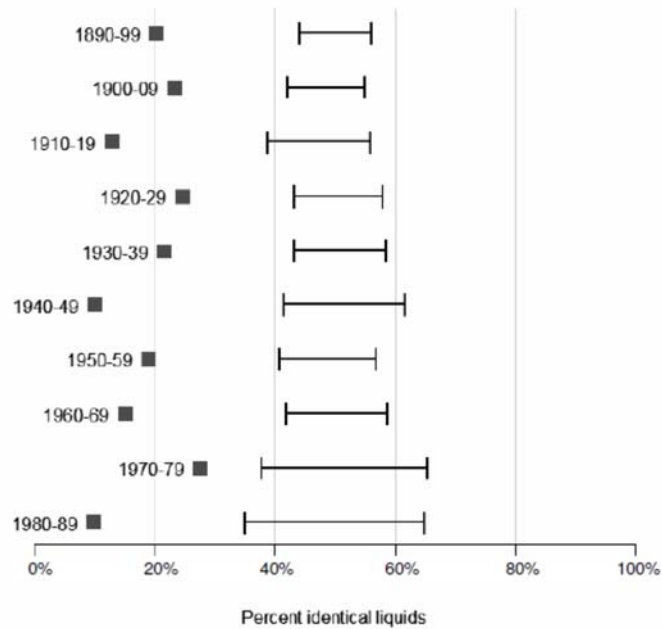
- Martin 2007, ch. 3: The English lexicon avoids having two *ls* or two *rs*:

(34) Comparing attested CELEX liquid pairs to Monte Carlo results



(p. 76)

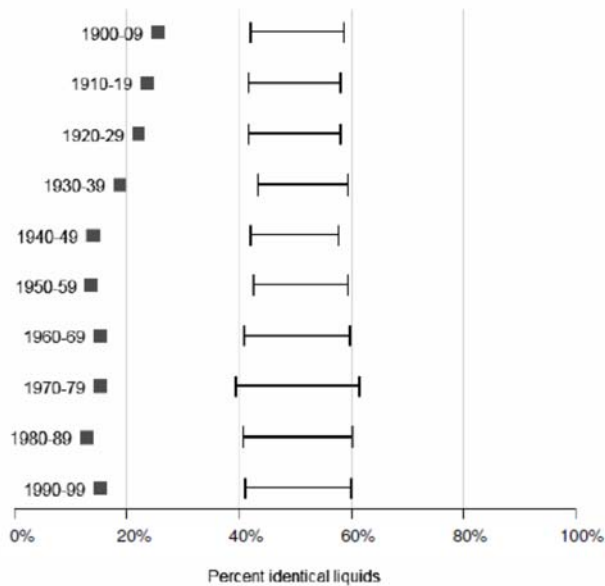
- The pattern carries over to newly coined words:
 (37) OED neologisms by decade: liquid identity rates



(p. 78)

- It also carries over into first names that U.S. parents choose to give!
 - even though only 36% of the top-thousand names in 1990-1999 were in the 1900-1909 top thousand

(38) Liquid pairs in popular names by decade



(p. 81)

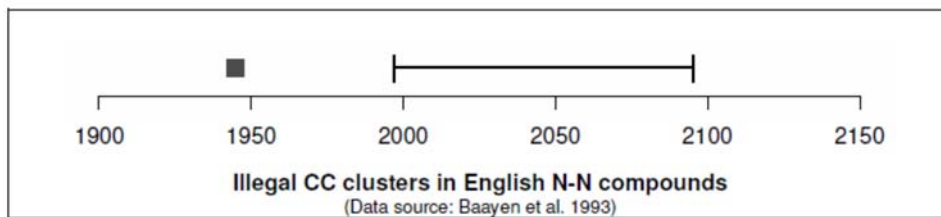
- Martin further found that names that drop out of the top thousand from one decade to the next are more likely to have two identical liquids (19%) than names that newly appear in the top thousand (12%).

- Similar results for drug brand names, fantasy role-playing-game character names, “unusual” baby names (from a website listing a whole lot of them).

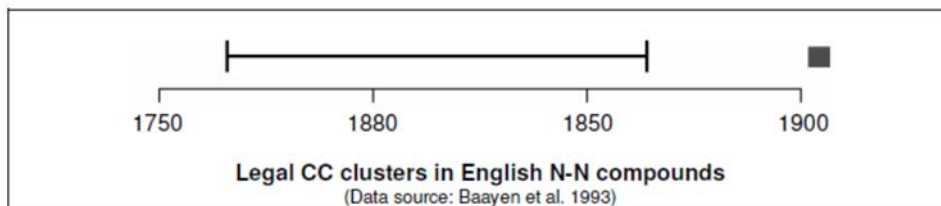
4. Compounds: phonotactics (Martin 2007 again)

- Which words do we choose to make compounds out of?
 - Some compounds’ middle CC sequence is perfectly legal even in a monomorpheme: *carpool*, *uptake*
 - Many compounds’ middle CC sequence is not: *setback*, *hothouse*, *bookcase*
- The usual interpretation: no phonotactic restrictions across compound boundary
- Martin found that this just isn’t so:

(47) Illegal non-geminate clusters are underrepresented in compounds

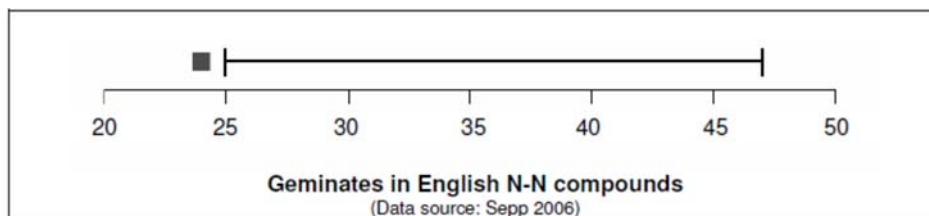


(48) Legal clusters are overrepresented in compounds



(p. 99)

(51) Geminates are underrepresented in compounds in Sepp corpus

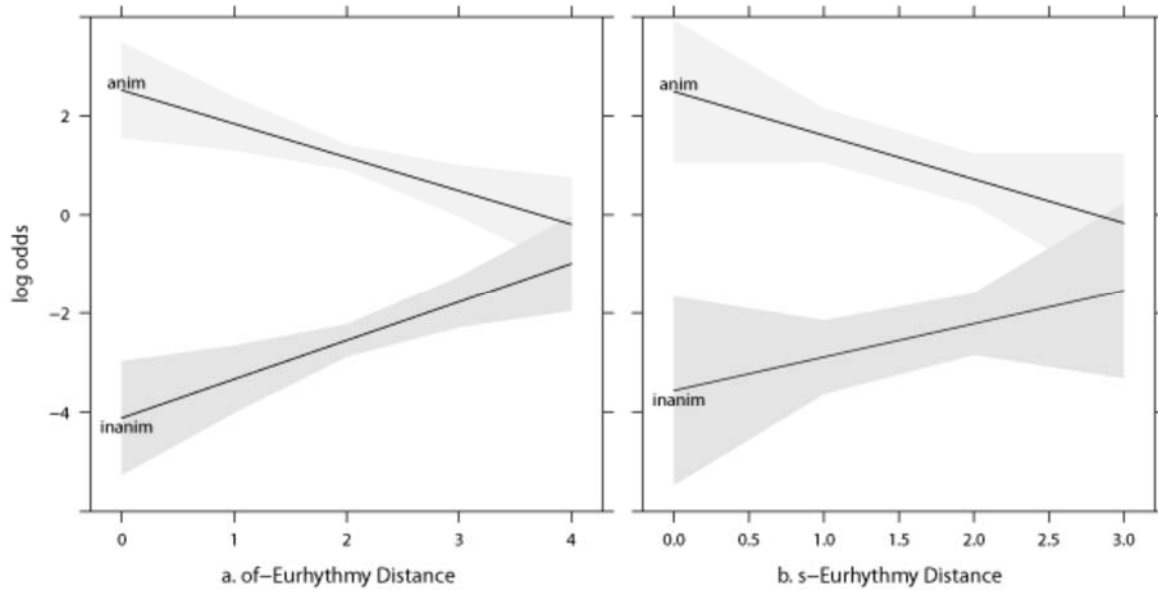


(p. 103)

- Similar anti-geminate findings for English words suffixed with *-ness*, *-less*; Navajo sibilant harmony in compounds; Turkish vowel harmony in single-word compounds (X-Y) vs. *izafet* compounds (X-Y’s).

5. Genitive alternation—Shih et al. to appear, Shih 2014

- How do we choose between saying *the car’s wheel* and *the wheel of the car*?
- Previous work: avoiding sibilant sequence, animacy, pronoun vs. noun...
- Here: rhythm (Eurhythmy Distance again)
 - Partial effects plot: positive log odds means more *X’s Y* rather than *Y of X*



(p. 85)

6. Literary choices that tell us about what counts as similar

6.1 Imperfect rhyme in Japanese rap lyrics

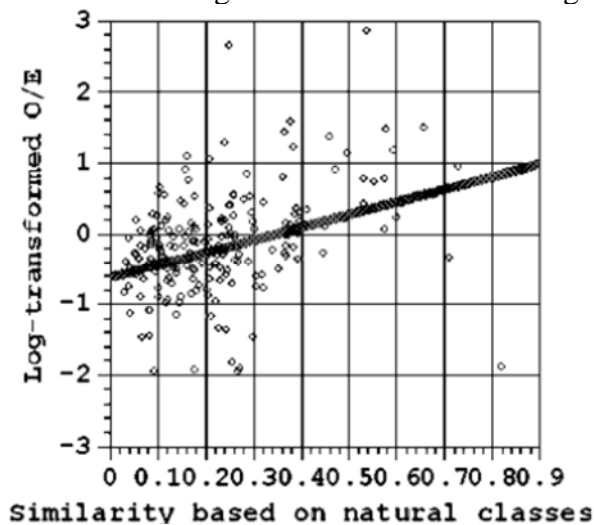
- Kawahara (2007); see also Steriade (2003) on imperfect rhymes in Romanian translated poetry.
- Example of an imperfect rhyme:

(2) *Mastermind* (DJ HASEBE feat. MUMMY-D & ZEEBRA)

- a. kettobase kettobase
 kick it kick it
 'Kick it, kick it'
- b. kettobashita kashi de gettomanee
 funky lyrics with get money
 'With funky lyrics, get money'

(Kawahara p. 115)

- Sounds that belong to more natural classes together occur more often in rhymes:



(Kawahara p. 121)

6.2 Cluster splittability

- There is diverse evidence that languages treat *sp*, *st*, *sk* as less splittable than other cluster (*bl*, *kr*, ...).
- Fleischhacker (2006), reviewing evidence from loan adaptation (also reduplication), and introducing new data of her own:

E.g.

Farsi loans: *esparta* ‘Sparta’ vs. *pelutus* ‘Plutus’

- But is there a real preference for grammars that don’t split *s{p,t,k}*, or is it just a matter of mis-hearing or mis-articulation?
- Fleischhacker (2006): analysis of Zwicky pun corpus!
 - Are these...



(Amazon)



(metal-archives.com)

- ...funnier than this?



(cartoonstock.com)

- I'm not sure, but they're more frequent!

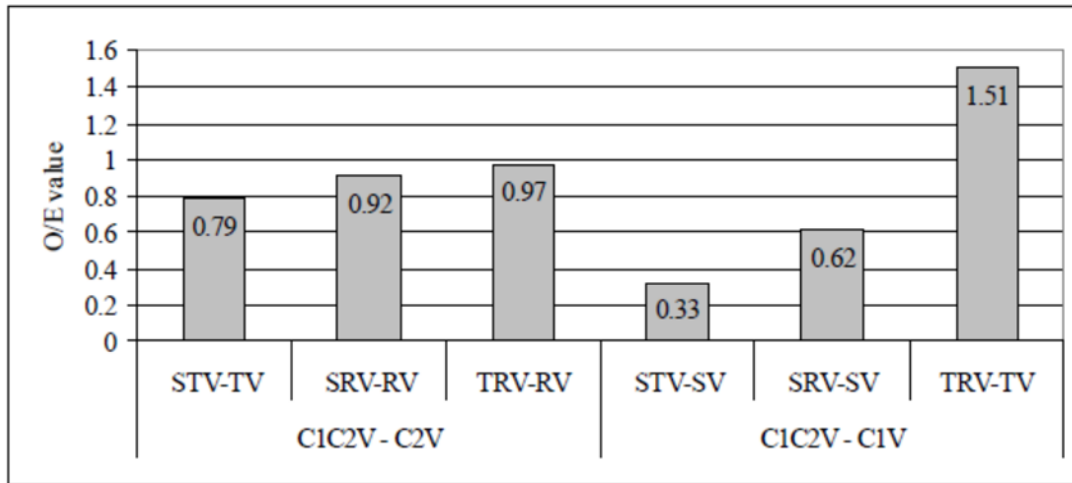


Figure 2. O/E values, by pun type

(p. 88)

P.S.: Who knew that computational humor was a field? See Hempelmann 2004, Hempelmann 2008.

- Minkova 2003: evidence from alliteration in Middle English.
 - When words that start with 2 or more consonants alliterate, poets allow C₁C₂ to alliterate with just C₁ (*sl...s...; dr...d...; b...br...*):

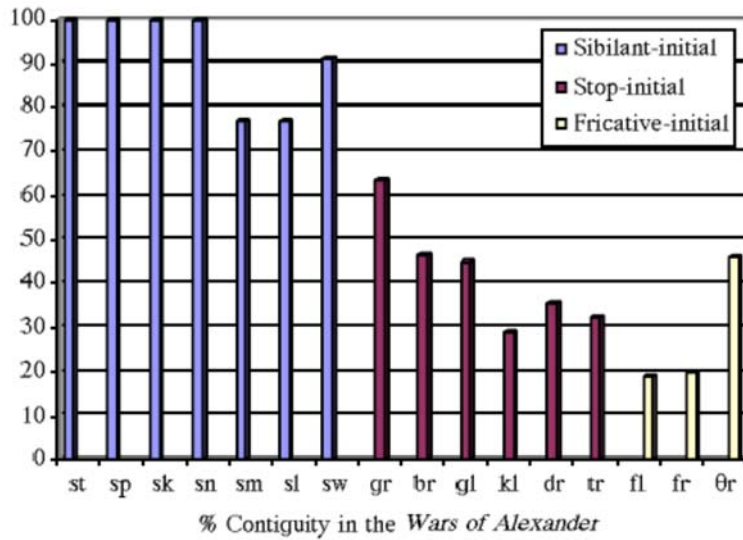
<i>ðurh slīpne nīp / sawle bescufan⁴</i>	<i>Beo 184</i>
<i>druncen 7 dolhwund. / Næs ða deað πa gyt⁵</i>	<i>Judith 107</i>
<i>πe πær baldlicost / on πa bricge stop⁶</i>	<i>Maldon 78</i>

(Minkova 2001, p. 1)

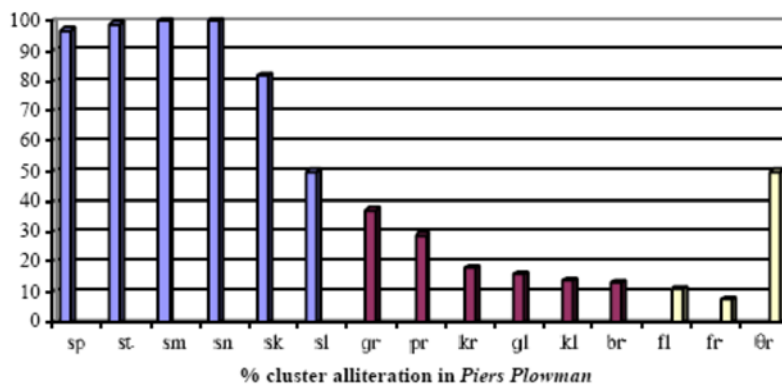
- But *s-stop* clusters alliterate in full:

CONTIGUITY in OE (<i>sp-, st-, sk-</i>)	
<i>scaðan scirhame / to scipe foron¹</i>	<i>Beo 1895</i>
<i>stopon stynmode, / stercedferhðe²</i>	<i>Judith 227</i>
<i>and πæt spere sprengde, / πæt hit sprang ongean³</i>	<i>Maldon 137</i>

(p. 1)



(p. 3)



(p. 6)

- Shigeto Kawahara has published at least 6 papers on Japanese puns! Kawahara 2009a is a nice place to start because it lays out the rationale for using verbal art as a way to study speakers' knowledge.
 - Example Japanese puns (*dajare*): the general idea is to repeat similar or identical phonological material within a sentence

Arumikan-no ue-ni aru mikan 'An orange on an aluminum can.'
 aluminum.can-GEN top-LOC exist orange

Aizu-san-no aisu 'Ice cream from Aizu' (Kawahara 2009b, p. 3)
Aizu-Mr.-GEN ice.cream

Haidegaa-no zense-wa hae dekka? 'Was Heidegger a fly in a past life?' (Kawahara 2009c, p. 15)
 Heidegger-GEN past.life-TOP fly COP

- Sample finding: nasals of different place are more similar than stops of different place

Table 1: The O/E ratios of minimal pairs differing in place.

m-n:	8.85	b-d:	1.09	p-t:	1.11
		b-g:	.65	p-k:	1.08
		d-g:	.39	t-k:	.87

(Kawahara 2009b, p. 7)

- Another sample finding: see how often each non-identical vowel pair co-occurs...

Table 2: The O/E ratios of the five vowels.

	a	e	o	i	u
a	0	1.60	2.13	0.72	0.78
e		0	0.74	1.90	0.55
o			0	0.46	1.54
i				0	2.06
u					0

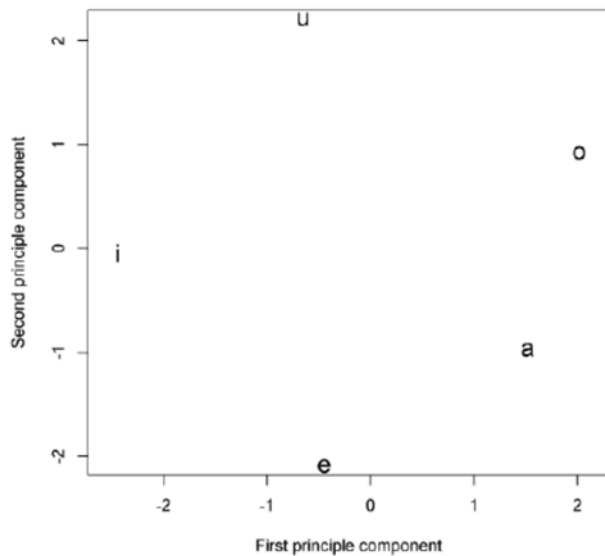
(Kawahara & Shinohara 2010, p. 5)

reciprocals yield distance matrix

	a	e	o	i	u
a	0	0.63	0.47	1.38	1.29
e		0	1.35	0.53	1.82
o			0	2.18	0.65
i				0	0.49
u					0

(p. 6)

- And use Principle Components Analysis to place them in a two-dimensional space



(p. 6)

7. Wrapping up

- Briefly review what each case has addressed.
- Each method has its pros and cons, both on the practical side and in interpretation.
- But I hope this gives you some ideas about how can investigate your own claims or predictions!

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