The social meaning of phonology: A formal modeling of the creole continuum in Hawai‘i Creole English

Manfred Sailer
[ˈman.fred ˈzaɪ.lɐ]
(he)

Goethe-Universität Frankfurt am Main

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Introduction

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- How can we model degrees of conversion in language contact?
- Framework-internal concern:
  - Most of variationist sociolinguistics studies phonological variation.
  - HPSG approaches to sociolinguistic phenomena focus on morpho-syntactic aspects.
- Empirical domain: variation in the realization of vowels in the creole continuum of Hawai‘i Creole English (HCE)

Overview

Hawai‘i Creole English vowels

Hawai‘i Creole English (HCE)

- At least 130 languages spoken in Hawai‘i (Statistical Report 2016)
- Official languages: English, Hawaiian
- HCE (“Pidgin”): English-based creole language
- Generally considered the language of identification for local Hawaiians independently of their ethnic background (Roberts, 2004)
- Estimated 600.000 HCE speakers (of 1.4 Mio) in Hawai‘i, 100.000 outside (Grama, 2015)
- Standard American English (SAE) as dominant language in the State of Hawai‘i
- HCE users (at least) bilingual.
- HCE important in the development of modern Creole studies (Bickerton, 1981, 1983)
- Well documented, stable status, standardization attempts, ... (Sato Center, `http://www.hawaii.edu/satocenter/`)

Distinct varieties or continuum?

- Classical creolistic division: basilect, mesolect, acrolect
- Tsuzaki (1971): four systems: Hawaiian Pidgin English, Hawaiian Creole English, Non-standard Hawaiian English, Standard Hawaiian English
- Odo (1970)

(1) a. Basilect: I ste eat/kaukau .

b. Mesolect 1: I ste eating.

c. Mesolect 2: I eating.

d. Acrolect: I am eating.

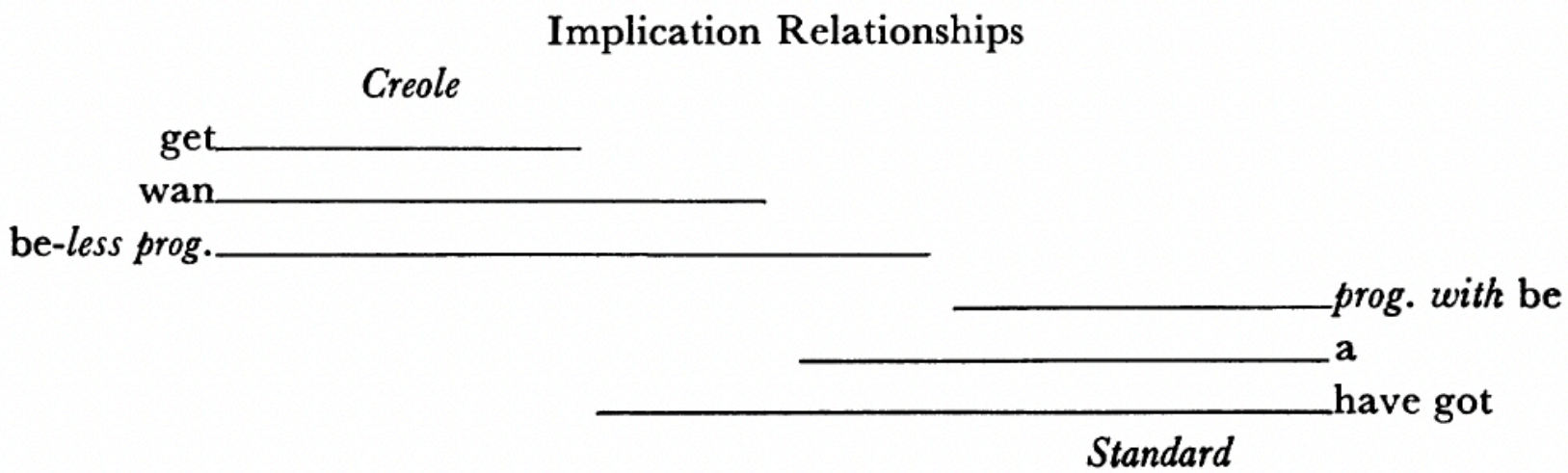
- Patrick (1999, 2008): mesolect variety with most variation
- Grama (2015):
  - Pidgin Density Measure: annotates 19 morpho-syntactic features of HCE
  - Individual creole features seem to be manipulated flexibly, as would be expected from a third-wave sociolinguistic perspective.

Creole continuum in syntax (Odo, 1970)

	HCE	*vs.* SAE
get:	My boyfriend get mumps.	*vs.* My boyfriend has got the mumps.
wan:	I get wan dog.	*vs.* I have a dog.
be-less prog.:	They hunting pig.	*vs.* They are hunting pig.

- Variation found within each informant (13 pre-schoolers, born in Hawai'i, different ethnic background, same parent occupation group)
- Odo (1970): Mixing of creole and standard forms, but implicational relation: *get* implies *wan* implies *be*-less progressive

(2) I gon be a bigger man. (*be*-less prog, *a*)



Alternative encoding

- Grama (2015) Pidgin Density Measure: HCE-marking of *get*, *wan*, *be*-less prog.: no marking that one feature is stronger HCE than another.
- Proposal: Compatibility marking for each of the language systems in contact. Here: Creole system (HCE) and Standard American English system (SAE)
- Marking and anti-marking for a particular system

	get	*wan*	*be*-less prog.	*have got*	*a*	*be* prog.
HCE	+		+		−	−
SAE	−	−		+		+

Dominant features in the varieties:

Most creole (Basilect):	HCE+ or SAE−	*get*, *wan*, *be*-less
Less creole (Mesolect):	one value, not HCE−	*wan*, *be*-less, *have*
Even less creole (Acrolect):	one value, not SAE−	*be*-less, *have*, *a*
Least creole (Standard):	HCE− or SAE+	*have*, *a*, *be*-full

Vowels

- Similar patterns as in Odo (1970), but simpler
- Forms characteristic for HCE or SAE, and forms compatible with either system
- Phenomenon 1: Realization of high lax vowels
- Phenomenon 2: Vowel reduction in unstressed syllables

Realization of high lax vowels

- Standard English:
  - [ɪ]/[i]: *fit* — *feet*
  - [ʊ]/[u]: *look* — *Luke*
- Sakoda & Siegel (2008):
  No lax/tense contrast in basilect HCE ("raising of high vowels"),
  - [i]: *fit* — *feet*
  - [u]: *look* — *Luke*

  Strong marker of basilect and avoided in mesolect.
- Grama (2015): ratio of raising correlates positively with the occurrence of morpho-syntactic features of HCE.
- Hay et al. (2013): New Zealand English, Hawai'i English: speakers who merge Standard English phonemic contrasts can still distinguish them in both real and nonse words!
  ⇒ Contrast present in underlying representations, but neutralized in production.

Vowel reduction

- Sato (1991), Sakoda & Siegel (2008): Absence of schwa as a HCE-specific phonological property
- Consequence: no vowel reduction in unstressed syllables
- Therefore, strengthening in unstressed syllables possible:
  kitten /kɪtɛn/: HCE [ˈkʰi.tʰɛn]; SAE [ˈkʰɪ.tən]
- Vowel reduction seems to be absent in basilect HCE, but possible, though not obligatory in mesolect and acrolect HCE.

	no [ɪ/ʊ]	no [ə]	[i/u]	[ə]
HCE	+			
SAE	−	−	+	+

Dominant features in the varieties:

Basilect:	HCE+ or SAE−	no [ɪ/ʊ], no [ə]
Mesolect:	one value, not HCE−	[ɪ/ʊ], optional [ə]
Acrolect:	one value, not SAE−	[ɪ/ʊ], [ə]
Standard:	HCE− or SAE+	[ɪ/ʊ], [ə]

Phonology in HPSG

Requirement

- No strong commitment to a particular theory of phonology, as long as:
- individual parts of the underlying representation and the surface realization can be connected!
- Because: not every [i] triggers a HCE+ meaning, only those corresponding to underlying [ɪ]!
- Prominent proposals in HPSG: Bird & Klein (1994), Höhle (2019)
- Here: version of Höhle (2019)

Post-lexical phonology in Höhle (2019)

- The PHON value:
$$\begin{bmatrix} \textit{phon} & \\ \text{s(egmental)-string} & \textit{list-of-segment} \\ \text{hierarchy} & \begin{bmatrix} \text{syllables} & \textit{list-of-syllable} \\ \text{feet} & \textit{list-of-foot} \\ \ldots & \end{bmatrix} \end{bmatrix}$$
- Utterance phonology:
$$\begin{bmatrix} \textit{unembedded-phrase} & \\ \text{utterance} & \textit{phon} \\ \text{phon} & \textit{phon} \end{bmatrix}$$
- Post-lexical phonological rules define the relation between the PHON and the UTTERANCE value.
- Höhle (2019): no concrete encoding proposal for phonological rules.

Post-lexical phonological rules

- No change:

$$\begin{bmatrix} \textit{no-change-phon-rule} \\ \text{out} \left\langle \boxed{1} \right\rangle \\ \text{in} \left\langle \boxed{1} \right\rangle \end{bmatrix}$$

Post-lexical phonological rules

- ɪ/ʊ-raising:

$$\begin{bmatrix} \textit{i/u-raising-phon-rule} \\ \text{out} \left\langle \begin{bmatrix} \textit{vowel} \\ \text{tongue} \begin{bmatrix} \textit{tense} \\ \text{vert } \boxed{1} \end{bmatrix} \end{bmatrix} \right\rangle \\ \text{in} \left\langle \begin{bmatrix} \textit{vowel} \\ \text{tongue} \begin{bmatrix} \textit{lax} \\ \text{vert } \boxed{1}\ \textit{high} \end{bmatrix} \end{bmatrix} \right\rangle \end{bmatrix}$$

Post-lexical phonological rules

- Vowel reduction:

$$\begin{bmatrix} \textit{vowel-red-phon-rule} \\ \text{out} \left\langle \begin{bmatrix} \textit{vowel} \\ \text{tongue} \begin{bmatrix} \textit{lax} \\ \text{vert} \quad \textit{central} \\ \text{horiz} \quad \textit{mid} \end{bmatrix} \end{bmatrix} \right\rangle \\ \text{in} \quad \left\langle \textit{vowel} \right\rangle \end{bmatrix}$$

Integrating phonological rules

- Extension to the feature architecture:

$$\begin{bmatrix} \textit{unembedded-sign} \\ \text{utt} \begin{bmatrix} \text{s-string} \\ \text{phon-rule-instances} \;\; \textit{list-of-phon-rule} \end{bmatrix} \\ \text{phon} \begin{bmatrix} \text{s-string} \;\; \textit{list-of-segment} \end{bmatrix} \end{bmatrix}$$

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- Example: /fʊt/ ↦ /fut/

$$\begin{bmatrix} \textit{unembedded-sign} \\ \text{utt} \begin{bmatrix} \text{s-string} \left\langle \boxed{1}\,\mathrm{f},\ \boxed{2}\,\mathrm{u},\ \boxed{3}\,\mathrm{t} \right\rangle \\ \text{pr-inst} \left\langle \begin{bmatrix} \textit{no-ch-pr} \\ \text{out} \left\langle \boxed{1} \right\rangle \\ \text{in} \left\langle \boxed{1} \right\rangle \end{bmatrix}, \begin{bmatrix} \textit{i/u-rais-pr} \\ \text{out} \left\langle \boxed{2} \right\rangle \\ \text{in} \left\langle \boxed{4} \right\rangle \end{bmatrix}, \begin{bmatrix} \textit{no-ch-pr} \\ \text{out} \left\langle \boxed{3} \right\rangle \\ \text{in} \left\langle \boxed{3} \right\rangle \end{bmatrix} \right\rangle \end{bmatrix} \\ \text{phon} \begin{bmatrix} \text{s-string} \left\langle \boxed{1}\,\mathrm{f},\ \boxed{4}\,\mathrm{ʊ},\ \boxed{3}\,\mathrm{t} \right\rangle \end{bmatrix} \end{bmatrix}$$

Social meaning/register in HPSG

Place of social meaning in grammar?

- Approach 1: A single, aggregated value for register/variety/social meaning information is encoded directly in the linguistic sign (Wilcock, 1999; Bender, 2007; Machicao y Priemer et al., 2022).
- Approach 2: Conventionalized components of social meaning are expressed in the sign, the register/variety/style is conversationally inferred (Green, 1994; Paolillo, 2000; Asadpour et al., 2022; Varaschin et al., 2024).
- Smith et al. (2010), Taniguchi (2019): Support for treating social meaning as conventional, non-at-issue, CI-like meaning
- Clark & Fox Tree (2002) (*uh* vs. *um*): Elaboration on conventional and particularized conversational aspects of social meaning
  - Conventional meaning: *uh* – short delay; *um* – longer delay
  - Particularized conversational meaning: 'I want to keep the floor', 'I want to give up the floor', ...

Conventional and conversational social meaning inference

- Consistent empirical observation: Use of non-standard features makes speakers being consistently perceived as "less intelligent", "friendly"
- Taniguchi (2019): this should be the social meaning conventionally attached to these forms.
- BUT:
  - "Busch effect" (Podesva et al., 2015; Taniguchi, 2019): When hearers have a strong prejudice about the speaker, the form does not change their impression.
  - Members of a larger community may agree on regional/social marking of a feature, but not on its effect on "intelligence" perception.
  - Burnett (2023): The effect of a socially loaded form depends on the user/situation/...

Conventional and conversational social meaning inference

- Rather, in line of Wiese (2023):
- Conventional association: A non-standard form is conventionally connected to communicative situations in which such a form is used.
- Hearers have prejudices about situations in which non-standard forms are used and about users of such forms
- Hearers infer speaker properties ("less intelligent"/"friendly") based on the conversational setting, their previous knowledge about the speaker, and their stereotypes.

$\Rightarrow$ Conventionally attached social meaning might be much simpler than what is often proposed.

  - Here: communicative situation in which creole grammar is appropriate
  - People may have stereotypical assumptions about communicative situations in which HCE is used in contrast to SAE.

Modelling of social meaning in Asadpour et al. (2022)

- Linguistic expressions can trigger social meaning inferences of the form proposed in Green (1994):

  "X believes
  that X and Y mutually believe
  that community Z normally believes
  that expression U signals ϕ."

- These inferences are *conventional*, very similar to *expressives* (Smith et al., 2010; Taniguchi, 2019)
- Evaluation for adequacy/consistency of expressed social meanings is a *particularized conversational implicature*.

Encoding of projective meaning

- Distinct attributes for different types of projective meaning (Sailer & Am-David, 2016; Rizea & Sailer, 2020)

$$\begin{bmatrix} \text{CTXT} & \begin{bmatrix} \text{PRESUP} & \ldots \\ \text{CI} & \{\ \ldots\ \} \\ \text{CX-CI} & \{\ \ldots\ \} \end{bmatrix} \end{bmatrix}$$

- Percolation:

  (3) For each phrase:
  The CI value of the phrase is the union of the CI values of the daughters and the phrase's CX-CI value, minus those that are integrated into the phrase's semantic representation.

- CI integration only possible in the scope of speech operators (unembedded utterances, complements of speech predicates, quotes)

Named varieties as communicative situations

- Adaptation of Wiese (2023)
- Any part of an utterance can be marked for its conventionally-associated communicative situation(s)
- "Named languages" are valid values for communicative situations: "named language" are set of rules/words/…typically used in a particular (very large) set of situations to which a label has been attached socially.
- Feature: COMM-SIT (CS)
  (short for proposition: 'the communicative situation is ….')
- Used for borrowing/language mixing in Sailer & Lamoure (2023) (matrix language vs. donor language)

(4)

das	beste	Konzert	ever
the	best	concert	ever
[cs *de*]	[cs *de*]	[cs *de*]	[cs *en*]

- Here: HCE and SAE as two "named languages"

Example: *kaukau* ‘eat’ – in HCE only

$$\left[\begin{array}{ll}
\text{phon} & \boxed{1}\left[\text{s-string}\ \left\langle \text{k, a, u, k, a, u} \right\rangle\right] \\
\text{cont} & \textit{eat-rel} \\
\text{ctsxt} & \left[\begin{array}{ll}
\text{c-index} & \left[\begin{array}{ll} \text{speaker} & \boxed{2} \\ \text{addressee} & \boxed{3} \end{array}\right] \\
\text{ci} & \left\{ \ldots, \left[\begin{array}{ll}
\textit{mutual-believe} & \\
\text{experiencer} & \boxed{2} \\
\text{standard} & \boxed{3} \\
\text{soa} & \left[\begin{array}{ll}
\textit{normal-believe} & \\
\text{expr} & \textit{Hawai‘i-Resident} \\
\text{soa} & \left[\begin{array}{ll} \text{comm-sit} & \textit{hce} \\ \text{utt} & \boxed{1} \end{array}\right]
\end{array}\right]
\end{array}\right], \ldots \right\}
\end{array}\right]
\end{array}\right]$$

By using the word *kaukau* in the meaning of ‘eat’, speaker and addressee mutually believe that the speech community of Hawai‘i residents normally believes that the word is used in a communicative situation in which HCE is used.

Discourse assessment of social meaning

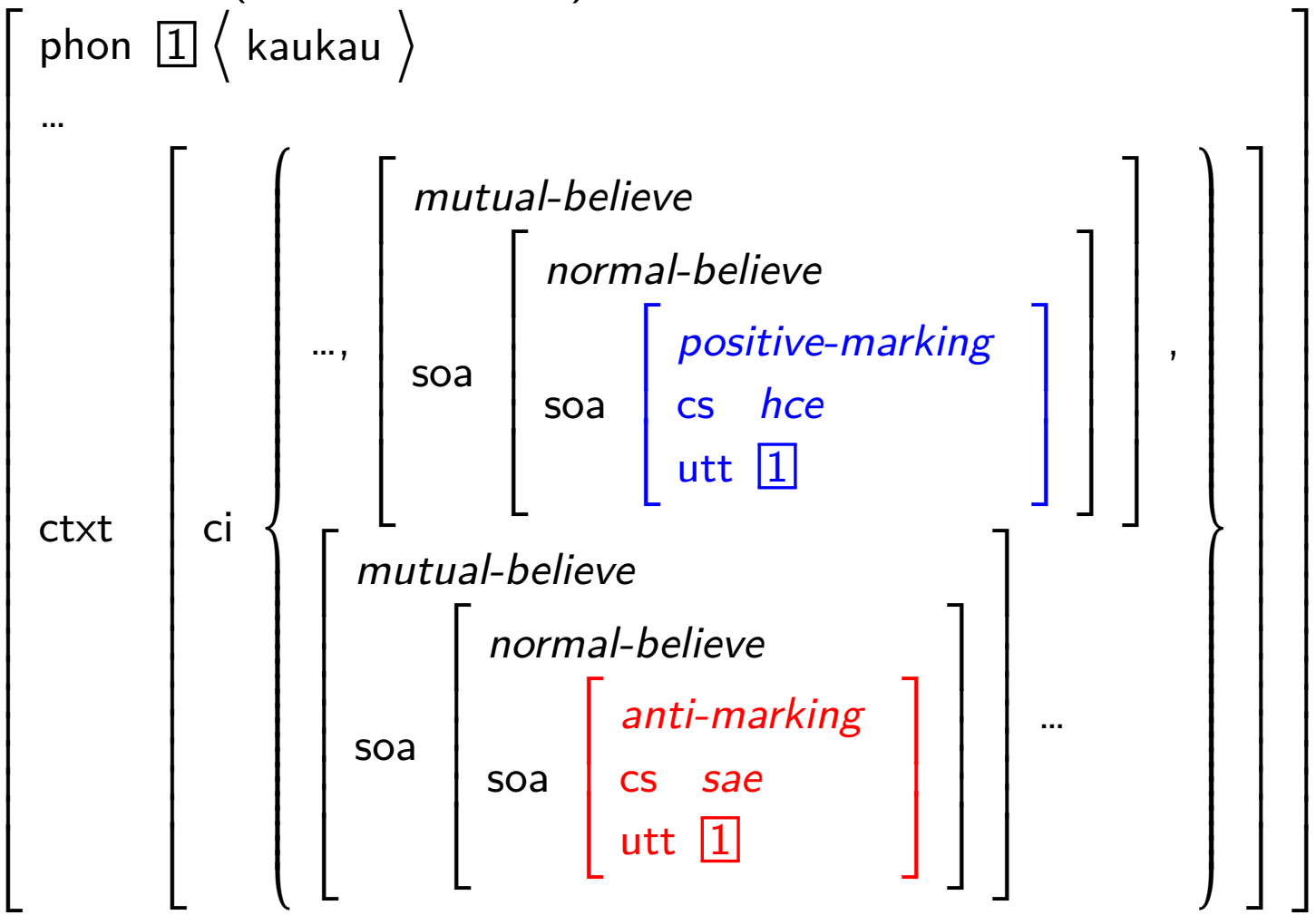
(5) # I am kaukau.

$$\left[\begin{array}{ll} \textit{normal-believe} & \\ \text{expr} & \textit{Hawai'i-Resident} \\ \text{soa} & \left[\begin{array}{ll} \text{cs} & \textit{sae} \\ \text{utt} & \langle\ \text{am}\ \rangle \end{array}\right] \end{array}\right], \left[\begin{array}{ll} \textit{normal-believe} & \\ \text{expr} & \textit{Hawai'i-Resident} \\ \text{soa} & \left[\begin{array}{ll} \text{cs} & \textit{hce} \\ \text{utt} & \langle\ \text{kaukau}\ \rangle \end{array}\right] \end{array}\right]$$

- Particularized conversational implicature (Grice, 1975):
  - Register mixing in conflict with the Maxim of Manner
  - Maxim can be flouted (irony, in-group talk, ...)
  - If no fitting particularized conversational implicature can be calculated and the utterance is infelicitous.
- Discourse effect: Cooperative speakers are expected to utter sentences that are in line with the properties of dialogue participants and situation.

Marking and anti-marking

- Linguistic expressions can not only indicate adequacy for a particular social meaning aspect but also incompatibility.
- Example: The word *kaukau* 'eat' is marked for HCE, but incompatible with SAE (HCE+, SAE–)



Enconding the social meaning of phonological realizations

Problem of social meaning of phonological variation

- HPSG proposals so far: social meaning/register attached to complete signs only (words, phrases, constructions)
- Bender (2007): Reducing phonological alternation to vocabular alternation: for ex. *foot* realized as [fut] would be marked for HCE.
- Problems:
  - Variation is productive, applicable to new and nonce words
  - Potential combinatorial explosion if several rules could apply to the same word
- (Problem not restricted to HPSG: Taniguchi (2019) offers no link between word meaning and the social meaning of particular phoneme realizations.)

Structure of the theory

- Any application of a phonological rule can trigger social meaning inferences.
- Here: post-lexical phonological rules at utterance level.
- Constraints of the form:
  For each occurrence of a *phon-rule* object R on the PR-INST list, the CI value contains an occurrence of the social meaning constraint M.

Social meaning constraints: ɪ/ʊ-Raising

- ɪ/ʊ-Raising: triggers HCE+ and SAE−
- For each occurrence $\boxed{1}$ of a *i/u-raising-phon-rule* object on the PR-INST list, the CI value contains an occurrence of

$$\begin{bmatrix} \textit{pos-marking} \\ \text{comm-sit} \quad \textit{hce} \\ \text{utt} \quad \boxed{1} \end{bmatrix} \text{ and } \begin{bmatrix} \textit{anti-marking} \\ \text{comm-sit} \quad \textit{sae} \\ \text{utt} \quad \boxed{1} \end{bmatrix}$$

Social meaning constraints: Absence of ɪ/ʊ-raising

- ɪ/ʊ-Non-raising: triggers SAE+
- Unchanged mapping of the underlying segment triggers social meaning
- For each occurrence [1] of

$$\begin{bmatrix} \textit{no-change-pr} \\ \text{out} \left\langle \boxed{2} \right\rangle \\ \text{in} \left\langle \boxed{2} \begin{bmatrix} \textit{vowel} \\ \text{tongue} \begin{bmatrix} \textit{lax} \\ \text{vert} \ \textit{high} \end{bmatrix} \end{bmatrix} \right\rangle \end{bmatrix}$$

on the PR-INST list,

the CI value contains an occurrence of $\begin{bmatrix} \textit{pos-marking} \\ \text{comm-sit} \ \textit{sae} \\ \text{utt} \ \boxed{1} \end{bmatrix}$

Social meaning constraints: Vowel reduction

- Vowel reduction in unstressed syllables triggers SAE+
- SAE: Application of phonological rule must be restricted to unstressed syllables!
- For each occurrence $\boxed{1}$ of a *vowel-red-phon-rule* object on the PR-INST list, the CI value contains an occurrence of

$$\begin{bmatrix} \textit{pos-marking} \\ \text{comm-sit} \quad \textit{sae} \\ \text{utt} \qquad\quad \boxed{1} \end{bmatrix}$$

Social meaning constraints: Vowel non-reduction

- Non-reduction of vowels in unstressed syllables triggers SAE–
- Social meaning constraint only no application of *no-change-pr* to vowels in unstressed syllables:
- For each occurrence $\boxed{1}$ of an object $\left[\begin{array}{l} \textit{no-change-pr} \\ \text{out} \left\langle \boxed{2} \right\rangle \\ \text{in} \left\langle \boxed{2} \right\rangle \textit{vowel} \end{array}\right]$

  on the PR-INST list of a sign with $\left[\text{phon} \left[\text{hierarchy} \left[\text{syllables} \left\langle \ldots, \left[\begin{array}{l} \textit{unstressed} \\ \text{nucl } \boxed{2} \end{array}\right], \ldots \right\rangle\right]\right]\right]$

  the CI value contains an occurrence of $\left[\begin{array}{ll} \textit{anti-marking} & \\ \text{comm-sit} & \textit{sae} \\ \text{utt} & \boxed{1} \end{array}\right]$

Example: *kitten*

- Dominant features in the varieties:

  Basilect: HCE+ or SAE–

  Mesolect: one value, not HCE–

  Acrolect: one value, not SAE–

  Standard: HCE– or SAE+

- Underlying representation: /kɪtɛn/

- [kʰitʰɛn]: $\left[\begin{array}{l} \textit{pos-m} \\ \text{cs} \quad \textit{hce} \\ \text{utt} \quad \boxed{1} \ \textit{u/i-r-pr} \end{array}\right], \left[\begin{array}{l} \textit{anti-m} \\ \text{cs} \quad \textit{sae} \\ \text{utt} \quad \boxed{1} \ \textit{u/i-r-pr} \end{array}\right], \left[\begin{array}{l} \textit{anti-m} \\ \text{cs} \quad \textit{sae} \\ \text{utt} \quad \textit{no-ch-pr} \end{array}\right]$

- Variety inference:
  Compatible with: basilect
  Incompatible with: mesolect, acrolect, SAE

Example: *kitten*

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- Underlying representation: /kɪtɛn/
- [kʰɪtən]: $\left[\begin{array}{ll} \textit{pos-m} & \\ \text{cs} & \textit{sae} \\ \text{utt} & \textit{no-ch-pr} \end{array}\right]$, $\left[\begin{array}{ll} \textit{pos-m} & \\ \text{cs} & \textit{sae} \\ \text{utt} & \textit{v-red-pr} \end{array}\right]$
- Variety inference:
  Compatible with: mesolect, acrolect, SAE
  Incompatible with: basilect

Example: *kitten*

- Dominant features in the varieties:

  Basilect: HCE+ or SAE–

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- Underlying representation: /kɪtɛn/

  [kʰitən]: $\left[\begin{array}{l} \textit{pos-m} \\ \text{cs} \quad \textit{hce} \\ \text{utt} \quad \boxed{1} \ \textit{u/i-r-pr} \end{array}\right], \left[\begin{array}{l} \textit{anti-m} \\ \text{cs} \quad \textit{sae} \\ \text{utt} \quad \boxed{1} \ \textit{u/i-r-pr} \end{array}\right], \left[\begin{array}{l} \textit{pos-m} \\ \text{cs} \quad \textit{sae} \\ \text{utt} \quad \textit{v-red-pr} \end{array}\right]$

- Variety inference: Inconsistent realization

  Compatible: basilect; mesolect, acrolect, SAE

  Incompatible: mesolect, acrolect, SAE; basilect

How to interpret inconsistent realizations?

$[\mathrm{k^h itən}]$: $\left[\begin{array}{ll} \textit{pos-m} & \\ \text{cs} & \textit{hce} \\ \text{utt} & \boxed{1}\ \textit{u/i-r-pr} \end{array}\right]$, $\left[\begin{array}{ll} \textit{anti-m} & \\ \text{cs} & \textit{sae} \\ \text{utt} & \boxed{1}\ \textit{u/i-r-pr} \end{array}\right]$, $\left[\begin{array}{ll} \textit{pos-m} & \\ \text{cs} & \textit{sae} \\ \text{utt} & \textit{v-red-pr} \end{array}\right]$

- Non-conform pronunciation requires Gricean reasoning, maybe:
  - non-local of Hawai‘i trying to imitate a Hawai‘i English variety
  - local of Hawai‘i in variety beyond classical creole continuum categories
  - ...
- As particularized conversational implicatures are optional, we can also "ignore" some social meaning contributions in accordance with previous assumptions about the speaker
  - Reverse linguistic stereotyping (Kang & Rubin, 2009, 2014)
  - "Bush" effect (Podesva et al., 2015; Taniguchi, 2019)
- As we can assess the number of particular markings, we can directly extract quantitative measures (Pidgin Density Measure etc).

Conclusion

Conclusion

- Integration of the social meaning of phonological variation into an overall model of social meaning in a formal constraint-based grammar framework.
- Urgent desideratum because:
  - sound variation is the most salient object of study in sociolinguistics.
  - socially meaningful variation at all levels of linguistic description
  - variation continua are omnipresent: dialects, creole continua, borrowing, code-switching, ...
- General need framework that goes beyond one-dimensional categorical ordering of named varieties (such as *basilect, mesolect, acrolect*).
- Possible application: Annotation of authentic data of under-resourced languages rather than "puristic" data
- Future research: Extension to purely semantically triggered social meaning (for ex. negative concord)

(6) No let nobody fool you guys!

'Don't let anyone fool you!' (*Da Jesus book*, Matthew 24:4)

Thank you!

Contact:
Manfred: sailer@em.uni-frankfurt.de

References I

Asadpour, Hiwa, Shene Hassan & Manfred Sailer. 2022. Non-*wh* relatives in English and Kurdish: Constraints on grammar and use. In Stefan Müller & Elodie Winckel (eds.), *Proceedings of the 29th International Conference on Head-Driven Phrase Structure Grammar, Online (Nagoya/Tokyo)*, 6–26. Frankfurt/Main: University Library. doi:10.21248/hpsg.2022.1.

Bender, Emily M. 2007. Socially meaningful syntactic variation in sign-based grammar. *English Language and Linguistics* 2(11). 347–381. doi:10.1017/S1360674307002286.

Bickerton, Derek. 1981. *Roots of language*. Ann Arbor: Karoma.

Bickerton, Derek. 1983. Creole languages. *Scientific American* 249(1). 116–123.

Bird, Steven & Ewan Klein. 1994. Phonological analysis in typed feature systems. *Computational Linguistics* 20(3). 455–491.

References II

Burnett, Heather. 2023. *Meaning, identity and interaction: Sociolinguistic variation and change in game-theoretic pragmatics* Cambridge Studies in Language Variation and Change. Cambridge: Cambridge University Press.

Clark, Herbert H. & Jean E. Fox Tree. 2002. Using *uh* and *um* in spontaneous speaking. *Cognition* 84. 73–111.

Grama, James M. 2015. *Variation and change in Hawai'i Creole vowels*: University of Hawai'i at Mānoa dissertation.

Green, Georgia M. 1994. The structure of CONTEXT: The representation of pragmatic restrictions in HPSG. *Studies in the Linguistic Sciences* 24(1/2). 215–232.

Grice, Paul. 1975. Logic and conversation. In Peter Cole & Jerry L. Morgan (eds.), *Syntax and semantics*, vol. 3, 41–58. New York: Academic Press.

References III

Hassan, Shene. 2021. *Syntactic and semantic aspects of supplementary relative clauses in English and Sōrānī Kurdish*. Frankfurt a.M.: Goethe University, Frankfurt a.M. dissertation. `https://publikationen.ub.uni-frankfurt.de/frontdoor/index/index/docId/61371`.

Hay, Jennifer, Katie Drager & Thomas Brynmor. 2013. Using nonsense words to investigate vowel merger. *English Language and Linguistics* 17(2). 241–269. doi:10.1017/S1360674313000026.

Höhle, Tilman N. 2019. An architecture for phonology. In Stefan Müller, Marga Reis & Frank Richter (eds.), *Beiträge zur deutschen Grammatik. Gesammelte Schriften von Tilman N. Höhle*, 571–607. Berlin: Language Science Press 2nd edn. doi:10.5281/zenodo.2588381. Originally published 1998.

References IV

Kang, Okim & Donald Rubin. 2014. Listener expectations, reverse linguistic stereotyping, and individual background factors in social judgments and oral performance assessment. In John M. Levis Levis & Alene Moyer (eds.), *Social dynamics in second language accent*, 239–253. Berlin: De Gruyter.

Kang, Okim & Donald L. Rubin. 2009. Reverse linguistic stereotyping: Measuring the effect of listener expectations on speech evaluation. *Journal of Language and Social Psychology* 28(4). 441–456.

Odo, Carol. 1970. English patterns in Hawaii. *American Speech* 45(3/4). 234–239.

Paolillo, John C. 2000. Formalizing formality: An analysis of register variation in Sinhala. *Journal of Linguistics* 36(2). 215–259. doi:10.1017/S0022226700008148.

Patrick, Peter. 1999. Testing the creole continuum.

References V

Patrick, Peter L. 2008. Pidgins, creoles, and variation. In Silvia Kouwenberg & John Victor Singler (eds.), *Handbook of pidgin and creole studie*, 461–487. Blackwell Publishing.

Podesva, Robert J., Jermay Reynolds, Patrick Callier & Jessica Baptiste. 2015. Constraints on the social meaning of released /t/: A production and perception study of US politicians. *Language Variation and Change* 27(1). 59–87. doi:10.1017/S0954394514000192.

Pollard, Carl & Ivan A. Sag. 1994. *Head-Driven Phrase Structure Grammar*. Chicago and London: University of Chicago Press.

Machicao y Priemer, Antonio, Stefan Müller, Roland Schäfer & Felix Bildhauer. 2022. Towards a treatment of register phenomena in HPSG. In Stefan Müller & Elodie Winckel (eds.), *Proceedings of the 29th International Conference on Head-Driven Phrase Structure Grammar, Online (Nagoya/Tokyo)*, 86–101. Frankfurt/Main: University Library. doi:10.21248/hpsg.2022.5.

References VI

Rizea, Monica-Mihaela & Manfred Sailer. 2020. A constraint-based modeling of negative polarity items in result clause constructions in Romanian. *Lingvisticae Investigationes* 43(1). 129–168. doi:10.1075/li.00042.riz.

Roberts, Sarah. 2004. The role of style and identity in the development of Hawaiian Creole. In Geneviève Escure & Armin Schwegler (eds.), *Creoles, contact, and language change: Linguistic and social implications*, 331–350. Amsterdam: John Benjamins.

Sailer, Manfred & Assif Am-David. 2016. Definite meaning and definite marking. In Doug Arnold, Miriam Butt, Berthold Crysmann, Tracy Holloway King & Stefan Müller (eds.), *Proceedings of the Joint 2016 Conference on Head-driven Phrase Structure Grammar and Lexical Functional Grammar, Polish Academy of Sciences, Warsaw, Poland*, 641–661. Frankfurt/Main: University Library. doi:10.21248/hpsg.2016.33.

References VII

Sailer, Manfred & Nicolas Lamoure. 2023. Superlative *ever* in Dutch, French, German, and Spanish. In Stefan Müller & Elodie Winckel (eds.), *Proceedings of the 30th International Conference on Head-Driven Phrase Structure Grammar*, 80–100. Frankfurt/Main: University Library. doi:10.21248/hpsg.2023.5.

Sakoda, Kent & Jeff Siegel. 2008. Hawai i Creole: Phonology. In Kate Burridge & Bernd Kortmann (eds.), *Varieties of English 3: The Pacific and Australasia*, 210–233. Berlin and New York: Mouton de Gruyter.

Sato, Charlene. 1991. Language change in a creole continuum: Decreolization? *University of Hawai'i Working Papers in ESL* 10(1). 127–147.

Smith, E Allyn, Kathleen Currie Hall & Benjamin Munson. 2010. Bringing semantics to sociophonetics: Social variables and secondary entailments. *Laboratory Phonology* 1(1). 121–155. doi:10.1515/LABPHON.2010.007.

References VIII

Taniguchi, Ai. 2019. Social meaning at the semantics-sociolinguistics interface. Unpublished manuscript, available from `https://aitaniguchi.github.io/socialmeaning080119-toshare.pdf`.

Tsuzaki, Stanley. 1971. Coexistent systems in language variation: The case of Hawaiian English. In Dell Hymes (ed.), *Pidginization and creolization of languages*, 327–339. Cambridge: Cambridge University Press.

Varaschin, Giuseppe, Antonio Machicao y Priemer & Yanru Lu. 2024. Topic drop in German: Grammar and usage. Abstract for HPSG 2024.

Wiese, Heike. 2023. *Grammatical systems without language borders: Lessons from free-range language*, vol. 9 Conceptual Foundations of Language Science. Berlin: Language Science Press.

Wilcock, Graham. 1999. Lexicalization of context. In Gert Webelhuth, Jean-Pierre Koenig & Andreas Kathol (eds.), *Lexical and constructional aspects of linguistic explanation*, 373–387. Stanford: CSLI Publications.