

# Codability and sociolinguistic variants: How do we select between dialectal alternative?

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## Introduction

### BACKGROUND

- Pictures with synonymous labels (low codability, see Fig 1, middle panel) are named more slowly than pictures with only one valid label (high codability, see Fig 1, right panel; Vitkovitch & Tyrrell, 1995; Alario et al, 2004).
  - Codability effects are interpreted as evidence of competitive lexical selection.
- Bidialectal speakers often have distinct object names in their two dialects -- *elevator* (US) / *lift* (UK).
  - Novel type of socially-constrained synonym.
- Although British speakers rarely volunteer American labels, they are familiar with them (passive knowledge).



Fig 1. Example of different stimulus types. Dialectal (Left), Synonymous (mid), High Codability (right)

### AIMS:

- To understand lexical selection for cross-dialectal competitors.
- To assess lexical selection's sensitivity to social context.

### QUESTIONS:

- Are pictures with dialectal alternatives also named more slowly than High Codability pictures?
- Is lexical competition between alternative picture names sensitive to frequency of the alternative?
- Is lexical competition sensitive to the social context of speaking?

## Experiment 1 – Free Naming

### METHODS

- 26 British participants named 24 pictures of each picture type 3 times.
  - Free naming; First presentation was practice
  - Picture sets matched, see Table 1.
  - Dialectal targets more frequent than competitors.

Variable	Dialectal	Synonymous	High Codability
T Frequency	3.8	3.9	4.07
# Syllables	1.75	1.62	1.79
# Phonemes	4.5	4.5	4.3
Familiarity	435	535	546
C Frequency	2.9	3.7	

Table 1. Mean values for zipf frequency, syllable and phoneme length, familiarity for target words in each picture type and competitor zipf frequency.

## Results

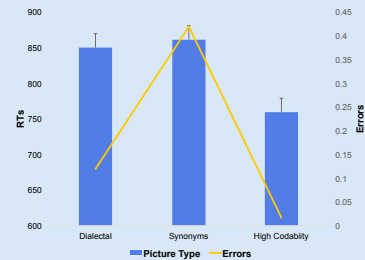


Fig 2. Mean Rts (with standard errors) and error rates in 3 picture type conditions. Correct responses defined by pre-test.

- Dialectal and Synonym pictures were both named slower than HC pictures, suggesting that frequency of competitor does not mediate lexical competition.
- Errors in the dialectal condition confirm that American labels were rarely volunteered.

## Exp 1 Discussion

- Participants were free to name pictures as they liked, resulting in high non-target productions for Synonyms but not for Dialectal pictures.
  - Dialectal alternatives not active enough to be selected but active enough to impact RTs.
- Would non-target productions increase if the social situation supported their appropriateness?
- Pragmatic relevance not found to impact on RTs (Hantsch, Jescheniak, & Schriefers, 2005) yet lexical alignment well-established behaviour (Garrod & Anderson, 1987; Brennan & Clark, 1996).

## Experiment 2 – Referential Communication Task

### METHODS

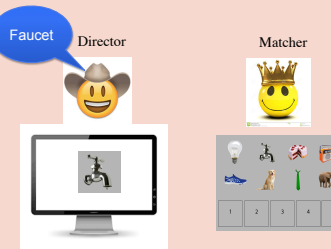
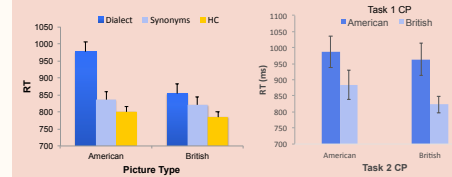


Fig 3. Example displays for director and matcher, respectively

- 40 participants named 15 dialectal, 15 LC and 59 HC pictures.
- Participant started as matcher, paired with either American or British Director, who used dialect-appropriate labels for dialectal items.
- Roles swapped, with Participant becoming Director. Conversation Partner (CP) also changed, to avoid conceptual pacts (Brennan & Clark, 1996).
- Each target picture named 3 times.

## Results



Figs 4. Mean RTs for 3 picture types by nationality of CP in task 1 (left) and for dialectal pictures by nationality of Task 1 and Task 2 CP (right).

### Naming Times

- Naming times of Dialect pictures only impacted by nationality of Task 1 CP.
  - Prior exposure to an alternative picture name slows production of the default label
- Influence of the nationality of the Task 2 CP only observed by items

### Proportion British Labels

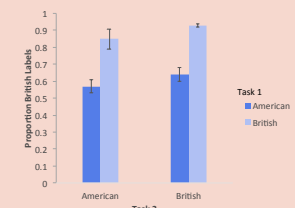


Fig 5. Mean proportion of British labels for dialectal pictures by nationality of Task 1 or Task 2 CP.

- Participants were less likely to use the default British labels after hearing the American label in Task 1.
- The nationality of task 2 CP had no reliable impact on their lexical choices.

## Conclusions

- Alternative labels slow naming times, irrespective of:
  - Their frequency, dialect membership, or the social context.