Social Meaning and Information Theory

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Introduction

A cautionary tale in imputing a signaling strategy from usage data

A Change in Progress

Perfect signaling

- With perfect signaling, the MI = the amount of information to be communicated (the message entropy).

As the signal gets noisier, MI < the amount of information to be communicated.

Information Theory

Application to Indexicality

- estimate MI between (UHM) and gender.
- compare to other gender signals
- properties of given names

Data

filled pauses
From the Philadelphia Neighborhood Corpus
22,967 filled pauses
395 speakers
DOB 1889 - 1998

given names
babynames R package
92,600 unique baby names from the social security administration
most common names from 1880-2013

Sample Results

 Speakers born in 1950s

Results

Conclusions

Utilizing Information Theory, we can compare linguistic variation we think speakers are using to signal to other signals.

Despite the relatively robust gender effect on 'UM' usage, it is a fairly weak signal for gender.

informative = (filled pause | gender)
not informative = (gender | filled pause)