Finding needles in the right haystack: Double modals in medical consultations

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Why some sociolinguistic variables are challenging

- Some syntactic and pragmatic variables offer challenges to quantitative sociolinguistics:
  - difficult to define (Pechle 2010; Choctite et al. 2005)
  - e.g. discourse marker like (D'Arcy 2005)
  - contextually constrained
  - e.g. tag questions (Moore & Podesva 2009)
  - infrequent in sociolinguistic interviews (Cheshire 1999)
  - e.g. verb qualifiers (Samson 2001)

One challenging example: the double modal (DM)

- The double modal (DM) is a feature of Southern United States English (SUSE):
  - (1) You know what might could help that is losing some weight. (53207)
  - (2) My bones might not can take that. (33896)

- DMs pragmatically conditioned (Mishoe & Montgomery 1994) and favored in negotiations and service encounters.

- DMs involved in the “preservation of face in interpersonal discourse” and the negotiation of a speaker’s wants or needs (1994:12)

- DMs used by all social classes (Feagin 1979); perhaps associated with rural speakers (Di Paolo 1989), the less educated, and lower prestige (Hasty 2011)

- DMs also associated with positive values (e.g. polite, friendly) as seen in a matched genre study of doctors using DMs (Hasty 2012)

- BUT DM production data has been elusive, due to contextual constraints:
  - (transcript and audio)

- Extracted 95 DM tokens, reviewed for authenticity in multiple passes (transcript and audio)

- Univariate descriptive statistics used to characterize the sample’s demographics relative to the distribution of the entire Verilogue database:

- Multiple-regression analysis conducted using GoldVarb X

- Separate runs performed for: a) all tokens b) healthcare provider (HCP) tokens and c) patient/caregiver (PT) tokens

How we looked in this Haystack

- Searched Verilogue database for DMs accepted in Hasty (2011)
  - Extracted 95 DM tokens, reviewed for authenticity in multiple passes (transcript and audio)

- Univariate descriptive statistics used to characterize the sample’s demographics relative to the distribution of the entire Verilogue database:

- Multiple-regression analysis conducted using GoldVarb X

- Separate runs performed for: a) all tokens b) healthcare provider (HCP) tokens and c) patient/caregiver (PT) tokens

Double modals in the Haystack

- 80% of DMs occurred in the South or Midlands

- 63% of DMs produced by HCPs, affirming that DMs are used at all social levels (Feagin 1979)

- 70% of DMs occurred in treatment discussions, supporting the hypothesis that DMs are favored in potentially face-threatening contexts (Mishoe & Montgomery 1994)

- DM-producing HCPs (N=441) represented a significantly higher proportion (p<0.01, 2-prop P) of the lowest-paying HCP specialties (i.e., Primary Care Physicians) compared to other specialties in the sample (N=985)

- DM-producing PTs (N=39) were significantly more likely to be “homemakers” (p<0.01) than non-DM producing PTs at the same practice (N=2632)

- DMs seemed to be used as a form of hedging:
  - o HCPs weaken directives (see 1) and preserve face (see 2) and treatment plants,
  - o Both as a means to negotiate the inherent power asymmetry of a doctor/patient interaction

What we found in the Haystack

- 0.3% rate of DM occurrence for consultations in the Midland and South (N=76) versus nonoccurrence (N=24155)

- Factor groups analyzed (bolded = retained):
  - Interaction type (acute/lifestyle, chronic, neoplastic)
  - HCP gender
  - HCP years in practice (<1 decade; 1-2 decades; 3+ decades)
  - PT age (<39, 40-69, 69+)
  - PT employment (employed, not employed)
  - PT gender

- DMs favored in consultations in which:
  - o HCPs’ has been in practice longer (range 25)
  - o 3+ decades (f=71); 1-2 decades (f=53); <1 decade (f=46)
  - o Suggests HCPs may be socialized to use DMs as a linguistic resource to mitigate directives and manage face
  - o The PT was unemployed (f=56, range 17)

- Consistent with a low prestige evaluation of the DM (Hasty 2011)

- Unemployed PTs may have more local social networks and decreased mobility (socially/geographically)

- o The HCP’s gender was female (f=63, range 16)

- Surprising given low prestige evaluation and that women were less likely to accepting a DM in Hasty (2011)

- However, this is consistent with findings pertaining to female doctors’ face management (West 1984)

What we know now and Where we want to go

- Infrequent, pragmatically-constrained linguistic features can be analyzed quantitatively, if one searches for them in the right ‘haystack’

- DM production is modulated by speaker and interactional concerns of saving face

- Professional experience and gender influence DM use in medical consultations

- While DMs may index lower prestige (Hasty 2011), the affective function of DMs can be accessed by experienced doctors as a way to negotiate the face threatening interactions of a doctor/patient interaction

- We are using vector space analysis (Turian and Pantel 2010) to further investigate the micro-pragmatic environments in which DMs occur

References