A3 : DUE TOMORROW @ 10PM

it seems nobody managed to [illegible] well
→ 2 things

CS 6742 LEC #5

LINGUISTIC STYLE ACCOMMODATION IN ~~TWITTER~~ [illegible]

^ ~~CASE STUDY TODAY~~

Today's case study exemplifies another way to do research: start from a known target, in this case psycholinguistic phenomenon: of accommodation

When people communicate, they nonconsciously adapt to each other's behaviour:

[cross your arms, wait]

- posture - sounds weird, but it's true, tried it out
- head nodding
- speech rate
- backchannels („um", „mm")
- linguistic style

And we do this non-consciously; [underline]

FASCINATING

One way to put this; is that communicative behaviour becomes like a dance

- linguistic style [underline]

Why do we care about this dance, you might ask practical importance

- negotiation - our favourite example of face meetings
- romantic relations - dating example
- monetary consequences - tips

We'll focus on linguistic style, since it leaves a trace written text to track
[underline title]

HOW things are said ←
(vs what is said)

[slide, example]

High level question
What can WE do?

manipulated
A) Large-scale data
- until now [this dance] was observed in small studies on limited domains, mostly in lab conditions
- what happens in the wild?
[underline twitter]

[slide] → [point out diffs]

B) Mathematical framework
a) measure style [underline]
circle here

[slide]
Clearly, despite . . , clear difference in style

Any ideas? (still an open question)

Here is a simple approach
[slide]

How to measure accommodation

I spent lots of time here, and I am convinced there is a better solution

One solution: take all convs and see ~~the probability~~ if the tweets in a conv are more similar stylistically than tweets that are not in conv

$P(\text{A\&B have pop} \mid \text{A\&B for conv}) \overset{?}{>} P(\text{A\&B have pop} \mid \text{A\&B not in comb})$

Then if left > right, we can say that tweets in conv are more similar, as an effect of acc?

ASK

Any problems with that?

- people that talk are likely to have each other so this would happen in like cases

$Acc_{J\&B}$: $P(\text{J\&B use pop} \mid \text{J\&B in conv}) > P(\text{J\&B use pop in 2 random tweets})$

does not fully capture the temporal nature of acc

$Acc_{a \to b}$ $P(b^{pop} \mid a^{pop}, b \leadsto a) - P(b^{pop} \mid b \leadsto a)$

$P(b)$ HIDE

a's use of pop triggers b's use

if $Acc > 0 \rightarrow b$ acc to a

(:)

↳ corbels for sym between users

↳ dense some corpus

complete some history for 2000 users

~215,000 conversations

Twitter API - this sounds familiar

[slide] Compare both

Influence

$Acc(a, b) - Acc(b, a)$

if > 0 b acc more to a than a does to b

→ a is more influencial

(SEE NEXT PAGE)

Penalty Open problem - love to hear feedback

~~related~~

- Symmetry
  - ↳ do both people accommodate?

Since this is a grad course, here are some open Q's

Social status & accommodation

One question that remains unanswered is why? all this? why do we simulate each other, and we don't even know it (well, never realize)

~~RECUR~~

BEST GUESS: ~~social role~~

SOCIAL GOALS

Accommodation is a conversation strategy to gain other's ~~social approval~~ (recall the dating scenario)

→ what would happen if we had people with no social goals

grad students ~~(make graphs)~~ age and study?

? computer = one stupid answer

→ 600 talks, 200 ...

movie characters – social relations are imagined

What do you expect? why that for the record?
→ they accommodate !!!
– even when one is just imagining a conversation they perceive the non-existent participants as adjusting to each other's ~~set~~ style

↓

accommodation is deeply embedded in LG mechanisms

even more:
– ~~male character~~ imagine
differences in gender in imagined gender
though that's very intriguing

in imagined status

(Other) Open problems
→ long term
→ social conseq. of accommodation
→ affective consequences
– is acc. perceived more useful
→ being contrast/dissuasive