Introduction

• Communication Accommodation Theory: conversation partners align their communicative behaviors over time (Giles & Oyag, 2006).
• In computer-mediated communication (CMC), people may align in structural (e.g., turn taking) and linguistic (e.g., word choices) conversation elements (Scissors et al., 2009).
• Purpose: To examine the effects of conversational tone and relationship status on structural alignment in instant messaging (IM) conversations across four different corpora.

Hypotheses:

• Alignment on length and duration of IM sequences will increase over time in cooperative (vs. conflicting) conversations and when conversation partners are friends (vs. strangers).

Corpora

• Each corpus consisted of dyadic IM conversations. Conversation partners were either friends or strangers. Each conversation was either cooperative or conflicting in tone.

Hamburger Corpus (48 stranger dyads; Walther et al., 2008)
• 10 minute discussions of best hamburger restaurants
• One participant was assigned to either like or dislike their partner

Vaccination Corpus (42 dyads; Riordan et al., 2013)
• 30 minute discussions of Gardasil vaccinations
• A confederate was instructed to take either opposing or neutral position toward partner’s argument

Cell Phone Corpus (39 stranger dyads; Kovaz et al., 2013)
• 10 minute discussions of the use of cell phones while driving
• A confederate was instructed to either agree or disagree with his partner’s position

Analyses

• Conversation transcripts were segmented into transmission units which were grouped into sequences (see Figure).
• Alignment was measured as the difference between adjacent sequences on length and duration measures (lower difference scores indicate greater alignment):
  • Sequence Length: number of words in each sequence
  • Sequence Duration: number of seconds elapsed until the beginning of the next sequence
• Each alignment measure was analyzed using a linear mixed-effect model (results presented in Table):
  • Main effects: sequence, tone, relationship
  • Interactions: tone x relationship, sequence x tone, sequence x relationship, sequence x tone x relationship
  • Random intercepts: conversation number, sequence

Results

Table: LME Model Coefficients for Alignment Measures

<table>
<thead>
<tr>
<th></th>
<th>Length (SE)</th>
<th>Duration (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.955 (0.157)</td>
<td>2.470 (0.203)</td>
</tr>
<tr>
<td>Sequence</td>
<td>-0.086** (0.003)</td>
<td>-0.012*** (0.002)</td>
</tr>
<tr>
<td>Tone</td>
<td>-0.571*** (0.071)</td>
<td>-0.691*** (0.080)</td>
</tr>
<tr>
<td>Relationship</td>
<td>0.076 (0.090)</td>
<td>0.176 (0.114)</td>
</tr>
<tr>
<td>Tone x Rel.</td>
<td>0.313*** (0.054)</td>
<td>0.343*** (0.065)</td>
</tr>
<tr>
<td>Seq. x Tone</td>
<td>0.007** (0.002)</td>
<td>0.008*** (0.002)</td>
</tr>
<tr>
<td>Seq. x Rel.</td>
<td>0.005* (0.002)</td>
<td>0.007** (0.002)</td>
</tr>
<tr>
<td>Seq. x Tone x Rel.</td>
<td>-0.004* (0.002)</td>
<td>-0.004 (0.002)</td>
</tr>
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Notes:
• \( p < .05, ** p < .01, *** p < .001 \)
• Tone coded as 1 = cooperative and 1 = conflicting
• Relationship coded as 1 = friends and 2 = strangers.
• Models based on unstandardized log-transformed alignment measures.

Discussion

• Our hypotheses concerning alignment over time were only partially supported: there was greater alignment over time between friends, but less alignment over time in cooperative conversations.
• Overall, these results show that there can be many interacting social factors (i.e., cooperation and relationship status) that can affect conversational alignment in IM across a variety of topics.
• Future research would benefit from examining new corpora (such as social networking sites and text messaging).

References