Language style has been a valid predictor of a variety of behaviors including: decisions, attraction, and improvements in mental health. Previous research suggests that language style is often outside of a person’s conscious control; especially when speaking as opposed to writing. The present research has examined how “speaking” language style in changes in problem solving groups over time. Consequently, we explored the effects of experience and feedback on individual language style during a group problem solving task. Two hundred forty participants in eighty, three-person groups completed two interactive, problem solving scenarios. For each scenario, participants imagined they were stranded in a wilderness with various items. Participants, both individually and as a group, rank ordered the items in terms of importance for the group’s survival. Half (n = 120) of these participants received feedback about their individual performance after the first task. Depending on their individual performance, participants were told they were most in line with the experts (Positive), or least in line (Negative). Linguistic Inquiry and Word Count (LIWC) software analyzed individual language style during both group interactions. Twenty participants were excluded from the analysis due to inadequate language sample size e.g., total word count less than 100 words. Repeated measures ANOVA showed that, during the second task, individuals used significantly fewer positive emotion F(1,205) = 4.891, p = .027, certainty F(1,205) = 4.407, p = .037, and total words F(1,238) = 6.802, p = .010. Additional analyses showed that group members told their initial performance was least in agreement with the experts increased their use of first person singular pronouns (t(34) = 3.033, p = .009) and decreased their use of prepositions (t(34) = 1.653, p = .107). In contrast, group members that told their initial performance was most in agreement with the experts increased their use of first person plural pronouns (t(34) = 3.885, p = .010) and prepositions (t(34) = 1.586, p = .168) but decreased their use of insight words (t(34) = 3.125, p = .004). Implications will be discussed.

## Results

### 1. Does individual language style change in problem solving groups over time?

<table>
<thead>
<tr>
<th></th>
<th>Total Words</th>
<th>Positive Emotion</th>
<th>Certainty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Feedback</td>
<td>Mean 195.61</td>
<td>36.51</td>
<td>3.869</td>
</tr>
<tr>
<td></td>
<td>Std Dev 268.55</td>
<td>213.87</td>
<td>1.94</td>
</tr>
<tr>
<td>Negative Feedback</td>
<td>Mean 377.052</td>
<td>546.895</td>
<td>4.048</td>
</tr>
<tr>
<td></td>
<td>Std Dev 251.523</td>
<td>203.472</td>
<td>3.837</td>
</tr>
</tbody>
</table>

### 2. Does receiving feedback affect changes in individual language style in problem solving groups over time?

- Increased their use of first person singular pronouns (t(34) = -1.683, p = .101)
- Decreased their use of insight words (t(34) = -3.033, p = .009)
- Increased their use of first person plural pronouns (t(34) = 3.885, p = .010)
- Decreased their use of prepositions (t(34) = 1.653, p = .107)

Group members that told their initial performance was most in agreement with the experts increased their use of first person singular pronouns (t(34) = -1.638, p = .110)

Group members that told their initial performance was most in agreement with the experts decreased their use of first person plural pronouns (t(34) = 1.834, p = .079)

- and decreased their use of prepositions (t(34) = 10.07)

- and decreased their use of prepositions (t(34) = 1.834, p = .079)

### 3. Does the type of feedback people receive (e.g., positive, neutral, or negative) affect changes in individual language style?

- Increased their use of first person singular pronouns (t(34) = -1.638, p = .110)
- Decreased their use of prepositions (t(34) = 1.834, p = .079)

## Discussion

In general, groups seemed to become more efficient in their interactions in the second task.

- One possible explanation for this finding is that groups may quickly learn the process by which they need to solve problems hurriedly obtaining the need for much process discussion.
- Such a finding is supported by the concept of increased social sharing. After performing a similar task, group members now have a shared understanding of how to approach the second task; requiring less process discussion.

The type of feedback individual group members received affected their performance in the group.

- Negative feedback:
  - Individuals receiving negative feedback seemed to become more “self”-focused and less explanatory.

- Positive feedback
  - Individuals receiving positive feedback seemed to become more inclusive and explanatory, increasing their influence in the group.

These results suggest group members used feedback to adjust their language style in ways that may help the other members “appropriately” weigh their contribution to the solution.

- For example, group members being told their answers were least in line with the experts after the first task usually significantly more first person singular pronouns were used by those receiving the second task discussion compared to the first. Such changes are commensurate with being less influential within the group.

- In contrast, group members who were told their initial answers during the first task were most in line with experts used significantly fewer first person singular pronouns and more prepositions (the opposite pattern) These changes are associated with greater influence within the group.

## References


