Intelligibility as a Co-Construct in L2 Speakers' Interaction

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Abstract

Much of the research exploring the features of speech that distinguish intelligibility ratings has focused on monologic speech production. This study considers whether the use of specific interactive features in task-based interaction influences interlocutors' ratings of intelligibility. Five dyads completed an information gap task and rated their partners' intelligibility following task completion. Recordings of the tasks were analyzed and coded for use of interactive features (backchanneling, topic initiation, negotiation and repair, and rising intonation at turn closure) as potential predictors of communicative success. The prevalence of interactive features in each participant's performance was then compared with their interlocutor's intelligibility rating and their success in completing the tasks. The hypothesis is that interactive ability (operationalized as use of interactive features) predicts interlocutors' successful communication in terms of intelligibility ratings and efficiency in task completion. Theoretical and pedagogical implications of exploring the relationship between interactive features and intelligibility in dyadic task performance are discussed.

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Background

Significant effort have been made to untangle and identify the aspects of L2 speech that are most crucial to listener judgments of comprehensibility, accentedness, and intelligibility, while the latter has proved most difficult to measure, and therefore least common in these studies. In those that focus on comprehensibility and accentedness, several have found the importance of prosody that contributes to listeners' perceptions (e.g., Isaacs, 2008; Kang, 2010; Munro & Derwing, 2001; Pickering, 2004), or the salience of suprasegmentals (Derwing & Rossiter, 2003). Munro and Derwing (1999) is one of the few examples of studies that include intelligibility in relation to several linguistic variables. But in general, intelligibility has been the most elusive of the three in its definition and operationalization, despite its increasing importance as a principle goal of L2 instruction (Isaacs, 2008).

While much of the research exploring intelligibility has focused on monologic speech production, central goals of L2 learning and instruction often involve successful communication within interaction. To focus on this gap, the present study explores intelligibility within the context of task-based interaction, aiming to target interactive features as potential predictors of communicative success, both in terms of intelligibility ratings by interlocutors and successful task completion.

Research Questions

1) Do features of L2 speech that are particular to interaction (backchanneling, negotiation and repair, prompting, and intonation at turn closure) contribute to overall intelligibility ratings by peer interlocutors?

2) Does learners' use of these interactive features relate to efficiency (speed) of task completion?

3) Does learners use of these interactive features relate to task completion (i.e., the number of answers individual students provide)?

Methods

The participants were 10 PIE students in an in-tact level 6 listening/speaking class. The task consisted of an information gap in which students needed to discuss sets of photos of activities and then match skills from a list to each activity. The interactional features were chosen from previous literature that represent strategies that encourage successful communication and include backchanneling, signals of negotiation and repair (Nakatani, 2010), prompting (Brookes, 2009), and intonation at turn closure (Brazil, 1997). The dependent variables were intelligibility (measured through interlocutors' impressionistic ratings and objectively through a cloze test) and successful task completion.

Results

In response to research question #1 (*Do interactive features contribute to overall intelligibility ratings?)*, there was no significant relationship between the total use of interactive features and intelligibility ratings, either impressionistic or cloze scores. However, correlations across the individual interactive features revealed two significant relationships. First, rising intonation at turn closure had a moderate positive correlation with objective cloze measures of intelligibility ($r=0.66$, significant at the $p<.05$ level). This means that when speakers understood their partner more clearly they were also using more intonation at turn closures. Second, negotiation and repair moves had a moderate negative correlation ($r=-.72$, $p<.05$) with scalar ratings of intelligibility. In other words, speakers who were rated highly by their partners on impressionistic intelligibility ratings used fewer negotiation and repair moves, presumably due to higher comprehension of their partners' speech.

Responding to research question #2 (*Does learners' use of interactive features relate to efficiency of task completion?*) there was no significant correlation between the average

time for successful task completion and the normed use of total interactive features (or individual features).

And finally, in response to research question #3 (*Does learners use of interactive features relate to task completion?*) there was no relationship between the total use of interactive features and the number of tasks completed (answers with supporting reasons volunteered by students). However, examining the individual interactive features revealed that one feature, rising intonation at turn closure, that had a significant negative correlation with the number of answers supplied ($r = -.73$, $p < .05$), meaning that the more correct answers a student volunteered, the less they used rising intonation at turn closure.

Relevance to the PIE and Second Language Learning

A central goal of second language speaking instruction is to improve intelligibility in spoken interaction. Although the limited sample size of the present study limits the findings, this study serves to guide further research to investigate the relationship between intelligibility and the use of interactive features in speech—a perspective that has received little attention. By better understanding this relationship, practitioners may be able to focus instructional efforts and improve students' intelligibility through more effective use of these features. Findings in this area may also lead to more valid measures of interactive ability for assessment and research purposes.

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