Intonation as a pragmatic resource in ELF interaction, revisited

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Introduction

There is considerable research pointing to the critical role intonational structure plays in native speaker (NS)-based discourse in terms of establishing informational and social convergence (Brazil, 1997; Hewings 1995; Pickering 2001; Wennerstrom 2001). The question remains open, however, as to whether similar roles for intonational structure and function can be identified in ELF interaction. In a recent study conducted by one of the researchers (Pickering, 2009), both pitch movement (tone choice) and relative pitch level (key choice) contributed to interactional success in ELF interaction. Participants were shown to be orienting to pitch cues both as a signal of a possible trouble source and as a means for indicating that negotiation or repair sequences had been accomplished successfully. These data, however, were collected under experimental conditions, and were limited to information-gap tasks. In the follow-up study we report here, we align ourselves with contemporary ELF research in assessing the role of the same intonational features in naturally produced ELF interaction.

Background

There is broad agreement in current descriptions concerning the multifunctional nature of intonation in English (Chun, 2002; Tench, 1996). Three major areas comprise: information functions (e.g., placement of prominent syllables and unit division); discourse management functions (e.g., pitch signals to indicate turn-taking patterns); and relationship-building functions (e.g., use of pitch matching to orient toward other participants.) While these functions are well attested in NS-based

interaction, the investigation of the use of intonation as a resource in these areas in ELF interaction has only begun recently and is still relatively sparse. In her discussion of a possible lingua franca core of phonological features, Jenkins (2000) identified both nuclear stress and tone unit division as critical for comprehensibility, thus prioritizing the information function of intonation. Pitzl (2005) analyzed extracts from ELF business meetings and finds that a combination of tonic placement and rising intonation were used by participants to signal a need for feedback. This indicator was recognized by interlocutors suggesting that stress and intonation are meaningful prosodic cue in ELF interaction.

In order to investigate the extent to which intonation is used as a resource in ELF interaction, Pickering (2009) examined the intonation choices used by ELF interlocutors to signal trouble spots and to negotiate their resolution. In agreement with Jenkins and Pitzl, she found that misplaced tonic stress contributed to misunderstandings between participants. In addition, examination of negotiation routines revealed that participants oriented toward pitch movement (tone choice) and pitch level (key choice) as communicatively meaningful choices and used these to indicate continuing interactional work as well as the successful completion of negotiation sequences. These data also suggested that ELF interaction did not mirror NS-based interaction in its employment of intonational resources. Specifically, there appeared to be no use of face-saving intonational devices at moments of disagreement. Unlike NS-based interaction where rising tones are used to avoid the appearance of overt contradiction that may be inferred from a falling tone (Hewings, 1995), ELF speakers seemed to have no expectation of this kind of intonational function and did not appear to respond negatively when overt, falling disagreement tones were used. Although these initial data suggested a role for interactional as well as informational intonational features in ELF interaction, they were also limited in scope as they formed part of a contrived data set in which interlocutors worked with information gap tasks in an experimental setting. In light of this, the following study was undertaken with the goal of assessing ELF speakers' use of intonational resources in more ecologically valid interaction.

Methodology

Data and Participants

The data for this study were collected during two informal, one-hour lunchtime sessions at an Intensive English Program (IEP) at a university in the southeastern United States. The IEP arranges such sessions every semester for the purpose of obtaining student feedback about the program. Although the sessions were coordinated by one of the researchers (i.e., introduced and closed), only non-native speaker (NNS) interlocutors were present during these sessions. Participants were provided with a free lunch and asked to discuss a short set of questions about class times and class structure at the IEP (cf. Watterson, 2008). Hardcopies of these questions were placed at each seat around the table, and large 28-point Calibri font posters were placed on three walls of the room to serve as task reminders (see Appendix I). In addition to the written instructions, the coordinating researcher encouraged the group to spend approximately 10 to 15 minutes on each topic, although this could not be controlled as the researcher left the room. Participants sat at a conference table and each session was recorded using a Sony DAT recorder and a Crown Sound Grabber II PZM area microphone placed in the middle of the table.

Participants in both sessions ranged in age from between 20-36 years old and had been in the US for between 2 to 18 months. Participants were self-selected volunteers recruited during the IEP's weekly conversation sessions. Although there were no additional selection criteria, attempts were made to locate a minimum of three/maximum of eight volunteers for each session.

Three interlocutors were present for the first lunchtime session: one participant from Vietnam, one from Russia, and a third from Saudi Arabia. Based on in-house proficiency exams, the IEP had placed these participants into one of its five levels as follows: Level 5, Level 3 and Level 1, respectively. During the second session, eight participants were present: four from China, two from Korea, one from Cameroon, and another from Costa Rica. All the participants in this session had been placed into mixed levels (Levels 3 and 4), except for one Chinese participant who was exclusively in Level 2. Participant information is summarized in Table 1.

Table 1. Participant information

14010 17 1 41 1101 14110 11110 111110 1011						
Participant data for first lunch session						
Country of		Time in U.S.	Formal English study	IEP		
origin	Gender	(months)	(years)	level		
Russia	F	12	1.6	3		
Saudi Arabia	M	4	6	1		
Vietnam	M	4	? (not reported)	5		
Participant data for second lunch session						

Country of	Gende	Time in U.S.	Formal English study	IEP
origin	r	(months)	(years)	level
Cameroon	M	7	14	4
Costa Rica	F	2	1	3 & 4
China	M	8	5	3 & 4
China	F	18	10	3 & 4
China	F	3	4	3
China	F	6	6	2 & 3
Korea	M	2	20	3
Korea	M	2	3	3

Procedures

The recorded data were transcribed orthographically. The researchers then independently evaluated the transcripts and sound files for evidence of the participants' orientation toward pitch cues to convey pragmatic meaning. Examples in which overlapping speech or irregularities in sound quality made accurate acoustic analysis difficult were dropped. The remaining examples were transcribed for the prosodic features of tone and key using Brazil's (1997) framework (Appendix II). Following Pickering (1999) and Schuetze-Coburn, Shapley & Weber (1991) data were subject to both auditory and instrumental analysis. Instrumental analysis was conducted using the pitch extraction function of the Kay Elemetrics Model 4500 Computerized Speech Laboratory. For two of the five data excerpts examined here we were able to conduct follow-up interviews with the participants regarding the data. No other participants were available for follow-up interviews after initial data analysis.

Results

The data reported in this paper are divided into two main sections. The first section examines three examples of how ELF users' orient toward tone choice. The second section considers the key choices made by ELF speakers; it discusses three examples in which choices of key by participants follow a similar pattern to that of tone choice.

Tone Choice

Tone choice in negotiation routines

Tone choice is defined under Brazil's (1997) model as the linguistically significant use of pitch movement (falling, rising or sustained level pitch) on the tonic syllable, or focus word of the tone unit. Pickering (2009) found that tone choices were used by ELF interlocutors to signal ongoing negotiation routines or to mark their resolution. Similar patterns were found in these data and are illustrated in Example 1.

```
Example 1: Spanish L1 speaker (CR), French L1 Speaker (C), and Korean L1 speaker (K)
```

```
1
   CR: //3mayBE// //→some CLASS//
        // you can use another [e]straTEgies//
3
        //→because [unclear]//
4
        //\\Dam\how do you say THAT// //\(\bar{7}\)am-, ambiGU-//
5
  C: //7say <u>WHAT</u>//
6 CR: //amBIgual//
7 C: //amBIGger//
8 CR: //amBIGger//
9 C: //→amBIgu-// [laughs]
10 K: //amBIGger//
11 C: //→YEAH// //Ŋit's LIKE// //Ŋit, it's kind of conFUsion//
        //\it's conFUsion//
12
```

This excerpt involves the Cameroonian (C), Costa Rican (CR) and Korean (K) participants in an interaction in which CR is attempting to say the word ambiguous (line 4) and is assisted by C and K. In line 4, CR asks directly for help with this vocabulary item, "how do you say that, ambigu-" using a rising tone. Continuing interaction work is evident in the use of rising or level tones in lines 5-10 by all three participants. Finally, in line 11, C offers a paraphrase of the term ambiguous with "it's kind of confusion." This paraphrase in line 11 is repeated in line 12, both times with a falling tone and clearly indicates an intent to conclude the negotiation routine, despite the lack of a final target form for ambiguous. Both CR and K accept this falling tone unit as a signal of closure of the negotiation regarding this particular lexical item and neither goes back to or repeats any further tokens of ambiguous.

This example demonstrates how ELF users may apply tone choice in a manner similar to that of a native speaker (Brazil, 1997). Specifically, both rising (lines 6, 7, 8, 10) and level tones (line 9) are utilized by interlocutors as they participate in a cooperative routine designed to clarify comprehension, and closure is recognized through the use of a falling tone.

Tone choice in self-repair

The second example is analyzed as a prosodic self-repair. This excerpt involves three participants from different L1 backgrounds: China (Ch), Cameroon (C), and Costa Rica (CR).

The example begins with a collaborative effort between C and CR in which CR rephrases (line 3) a question asked by C (lines 1-2) regarding how many words CR does not understand when reading in English. CR responds by saying "a lot" (line 5) with a rising tone, then following a single rhythmic beat, she repeats the answer with a distinct falling tone choice. There is no other change between the two units and the prosodic pattern is clear. We propose that in the first instance when C uses a rising tone, she recognizes that this may be understood by the listener as requiring their confirmation in order to be understood (Brazil, 1997). In the present context of interaction, however, this is not the case. Thus, almost immediately, CR repeats the phrase "a lot" with a change to a falling tone, indicating a pronouncement of fact and eliminating the need for confirmation from her interlocutor. Although Mauranen (2006) does not directly address prosodic self-repair, she does note that proactive selfrepair is "very common in [ELF] data" and includes rephrasing of both grammar and content (p. 139). This speaker's particular choice of prosodic self-repair also corresponds to observations of corrections for lexical stress made by Cutler (1983), who proposes that "speakers mark a correction when they fear that the error is particularly likely to disrupt communication of their intended message" (p. 85). When questioned about the repeated tone unit in a follow-up interview, CR explained that she wanted to "emphasize" her statement. Although it is impractical to expect CR to consciously recognize the communicative intent of her prosodic

choices in a manner which corresponds to this study, it seems not unlikely that she is using the term "emphasize" to indicate some kind of change in prosodic character. In addition, CR's comment confirms that she wished in some way to modify her original message and that this modification took the form of a prosodic change.

Tone choice and a lack of orientation to socially integrative marking

With the two previous examples, we argue that ELF users may orient to tone choice and demonstrate an awareness of how prosody may influence the interpretation of meaning. This does not mean, however, that intonation structure and function in ELF interaction mirrors that of NS-based interaction. Example 3 demonstrates a lack of orientation to tone choices between interlocutors where particular choices would be anticipated for "socially integrative" purposes in NS-based interaction (Hewings, 1995). In other words, we find that unlike NS-based interaction in which certain tone choices may be avoided because of affective concerns, ELF interlocutors do not necessarily use intonational cues to perform this kind of relationship-building role.

Example 3 is taken from the first lunchtime session which comprised three ELF speakers from Korea (K), Russia (R), and Saudi Arabia (S). The participants are discussing their preference for morning or evening English classes, and up until this point, the conversation had been dominated by R and V. In an attempt to incorporate S into the conversation, in line 6, R directly engages him about his class time preference.

Example 3:Russian L1 speaker (R), Vietnamese L1 speaker (V), and Saudi Arabian Arabic L1 speaker (S)

```
R: //→it was the ONE of the reasons why I CHOOSE//
2
        // this PROgram because it's//
3
        //\SMORNing CLASses//
  V: //YEAH//
4
5
        [quiet talking, laughing] [3 second pause]
6
   R: //\underschoose ONE// (++) //\underschoose ONE do you LIKE//
7
       //7this ONE// //CLASses from-//
                  L//> yeah YEAH// // In- GOOD GOOD//
8
   S:
   R: // MORNing yeah MORNing//
```

R's choice of an imperative structure and falling tone on "choose one" followed by the direct interrogative "which one do you like" would sound

unnecessarily abrupt and rude to a native speaker and be unexpected in a NS-based context. Within Brazil's model, the communicative intent of this falling tone may be glossed as "I am telling you to choose one", as opposed to the more likely choice of a rising tone that would gloss as "I am asking you to choose one." There is no reaction from S to suggest that he is discomfited by R's choices, and his response "yeah, yeah, good, good" overlaps with R's continued questioning (this time with a rising tone) in line 7. This finding accords with the data analyzed in Pickering (2009) where there was also evidence that ELF interlocutors did not orient negatively toward overt disagreements expressed with a falling tone.

Key Choice

Choice of key is concerned with the linguistically significant use of pitch level by the speaker for communicative intent. Within Brazil's (1997) framework, three significant pitch level choices are identified (high, mid and low). Investigation of the role of key choice in NS-based interaction has examined pitch level choices in distinguishing the "voicing" of self and others (e.g., mimicry or quoting) and pitch concordance between interlocutors to demonstrate agreement (Brazil, 1997; Couper-Kuhlen & Selting, 1996; Szczepek Reed, 2006.) As with tone choice, these data suggest that ELF speakers orient toward some functions of key choice.

Pitch concordance & stylized voicing

In Example 4, R and V are discussing their preference for morning or evening classes. R describes a conversation she had with the dean of her home university in Russia in which the students complained about classes being held too late in the evening.

```
Example 4: Russian L1 speaker (R) and Vietnamese L1 speaker (V)

R: //→the DEAN told us the same THING like//

//↑↑NO// //↑↑I am sorry GUYS//

//↑↑I KNOW sometimes it's too LATE it's//

//→because our lecture STARTed// //→uh EIGHT pm//

//↑EIGHT pm in the EVening//

//↑it was CRAzy//

V: //↑CRAzy//

R: //↑YEAH totally//
```

In line 1 R frames her quoted speech from the dean with the tone unit "the dean told us the same thing like," and in lines 2-3, she speaks as the dean. For this impersonation, R uses a very high pitch which following Szczepek Reed (2006, p. 9) we term "falsetto voice." The shift in pitch register is shown below in Figure 1. This particular kind of prosodic orientation that comprises the voicing of imaginary figures is defined by Szczepek Reed as "stylized prosodic orientation" (p. 130). Crucially, she proposes that

the additional highlighting of the prosodic pattern underlines the speakers' awareness of their own prosodic activity...Prosodic stylization is considered to be an interactional resource with which participants highlight their own prosodic design, and thus draw attention to it (p. 91-92).

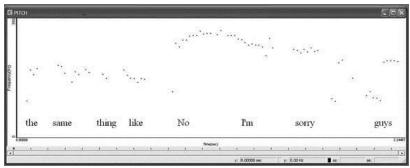


Figure 1. R's use of falsetto voice for stylized prosodic orientation

In lines 5-6, R uses a high contrastive key to express her dismay that classes started so late. This can be glossed as "tell me, was it or wasn't it crazy," and in line 7, V responds to R's high key invitation with a high key agreement on "crazy." R responds with a further pitch concordant, high key "yeah totally." This excerpt suggests that these ELF interlocutors are orienting to key choice in the same way as would be expected in NS-based interaction. R intentionally uses stylized voicing to personify the voice of her university dean, and V responds to her exasperated comment "it was crazy!" with a matching high pitch in a gesture of interactive concord.

As with the findings on tone choice, however, it was not the case that all ELF interlocutors oriented toward key choice in a manner that would be anticipated in NS-based interaction. The following two examples (Examples 5 and 6) highlight the contributions of S, the Arabic speaker from Saudi Arabia who regularly responded to interlocutors or entered the

conversation using a high, discordant key that did not match the pitch level choices of the other participants.

```
Example 5: Vietnamese L1 speaker (V), Russian L1 speaker (R), and Arabic L1 speaker (S)
```

```
1
        //→because actually is I DON'T s-, study GRAMmar//
2
        //—because I JUMP into level FIVE// //—and just study WRITing//
3
        //—so I DON'T get much iDEA about it//
4
        //→how about YOU//
5
       //→uh. about GRAMmar//
   S:
6
   R:
       //→YEAH//
       //→GRAMmar // //↑I don't th-, LIKE GRAMmar//
7
   S:
       //→REALly//
   V: //↑you LIKE GRAMmar//
9
       //↑↑NO no no no// //→beCAUSE this, uh//
10 S:
        //→uh, my GRAMmar diffi-, DIFFicult for me//...
11
```

In this example, S is invited by V to join the interaction in line 4. In line 7, S says "I don't like grammar" which V mishears and tries to confirm in line 9 with "you like grammar?" S immediately responds in a falsetto voice and with considerably louder volume with a contradictory "no, no, no, no" which in an unexpectedly forceful manner indicates that V has misunderstood the previous utterance. Both the increased volume and higher pitch are shown in Figure 2.

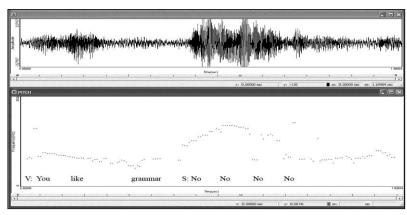


Figure 2. S's use of falsetto voice and increased volume

A similar pattern of discordance is shown in Example 6.

```
Example 6: Vietnamese L1 speaker (V), Russian L1 speaker (R), and Arabic
L1 speaker (S)
    V
        //↑do, do the TEACHer// //→GIVE you the CERtain TOpic//
1
2
        //—and let you disCUSS about it or JUST-//
3
   S:
                                          L //↑YEAH, yeah, yeah//
4
        //\ft-, t-, t-, YEAH, yeah///
5
   V:
                        L//→I just want to ASK about the FORmat//
6
                                                             L//→veah//
   S:
   V: //→of the SPEAKing class//
   S:
                        L//→yeah// //↑they GIVE you PAper
9
        //—and you PUT about [HOME]//
10
        //—you SPEAK about your COUNtry or other adDRESS//
```

S responds to V's mid key question about the topics used in his oral proficiency class with a high key and considerably louder "yeah, yeah, yeah" in line 3. This response appears to interrupt V who continues "I just want to ask about the format of the speaking class" in a continuing mid key in line 5. To a NS hearer, S's high key choices signal a polarity or contradiction that implies a bald statement of disagreement in Example 5 and appears as unnecessarily emphatic in Example 6.

Anderson (1990) proposes that in NS-based interaction, "concord-breaking will not pass unobserved but be taken as meaningful by speakers" (p. 107), and this may be one difference between ELF and NS-based communication. Although this pattern of concord-breaking key choices seemed to go unremarked in the ongoing interaction between the ELF participants and it was not possible to conduct follow-up interviews with this group of speakers, somewhat later in the interaction both R and V critique S's speaking skill and suggest that he might want to "slow down:"

```
S: Yeah, my problem, really, actually, the..
```

V: LYou don't try to speak too fast.

Because your sentence, th-, they stick together.

R: Yeah, yeah, yeah.

V: and is it hard for us to understand, you know?

S: Yeah, uh, well, my problem..

V: Try to co-, slow down.

S: [laughs] Yeah, uh, my problem, really, the grammar.

V: Yeah, of course.

S was the only speaker who demonstrated a consistent and obvious lack of pitch concordance toward his interlocutors throughout his interactions. He was the only Arabic speaker and at least one study of the fundamental frequency (F0) in Arabic learners of English (Abu-Al-Makarem and Petrosino, 2007) observed that the mean fundamental

frequency "for spontaneous speech samples of Arabic speakers was significantly higher than ... for Euro-American, African-American, and Polish samples" (p. 576) and that "young Arab men speak generally louder than Euro-American men" (p. 579). In addition, S was the only speaker assigned to IEP Level 1 and characterized as a high beginner/low intermediate learner. Pickering & Levis (2002) found that lower proficiency ELF users were less able to manipulate pitch range patterns in interaction and this aspect of prosodic production appeared to develop over time

Discussion

Overall, this study demonstrates that Brazil's (1997) framework of discourse intonation is able to provide comprehensive and purposeful explanations for systematic patterns found in the prosodic composition of ELF discourse. These data suggest that ELF users employ intonational signals as a resource to negotiate and maintain successful interaction. This analysis of ecologically valid data collected as part of group discussion sessions confirm findings reported in Pickering (2009) which investigated experimental data. In addition, this study extends the original work to include examples of prosodic self repair and the use of stylized voicing in quoted speech in ELF interaction. In agreement with the original study, we propose that ELF users may co-opt some but not all aspects of intonation structure and function common to NS-based interaction. In other words, these data do not show that ELF interaction mirrors NS-based interaction. This is particularly the case with regard to "socially integrative" uses of tone choice where there is no evidence of ELF interactants employing the face-saving function of rising tones that would be anticipated in NS-based interaction. It is as yet unclear how representative these findings are of the broad spectrum of ELF interaction; however, they offer a baseline of comparison for further analyses.

Appendix 1

Below are three possibilities for changes to the IEP program. Each possibility has two choices. Which of the choices would you prefer? Discuss the choices and, as a group, try to agree which one is the best. Please take about 10-15 minutes to discuss each topic.

Policy #1

The IEP does not have any classes for grammar only. Grammar is usually taught in other classes such as writing and speaking. Which do you prefer?

- Change one speaking class into a grammar class (Tuesday and Thursday, 1 hour and 15 minutes). I don't learn enough grammar in my other classes.
- 2. Keep the current schedule. I like the classes as they are.

Policy #2

It is very difficult to change class schedules. The university tells the IEP what class times are available. Which of these times do you prefer?

- Monday, Wednesday, Friday, 9:00am-12:50pm; Tuesday & Thursday 8:00am-10:50am
- 2. Monday, Wednesday, Friday, 3:00pm-8:30pm; Tuesday & Thursday 1:00pm-4:30pm

Policy #3

After Level 5, many IEP students go on to attend university. What is the best way to prepare Level 5 students for university classes?

- 1. Level 5 students visit **one** university class **per semester**. This is one university class in the last IEP semester.
- 2. Level 5 students audit a university class for the **whole semester**. This means that the student must go to a university class Monday and Wednesday from 4pm-5:30 every week.

Appendix II: Transcription Conventions

// //	tone unit boundaries	
UPPERCASE	prominent syllables	
UPPERCASE	tonic syllable carrying the tone choice	
7	falling tone	
7	rising tone	
→	level tone	
$\uparrow \uparrow$	falsetto voice	
↑	high key	
\rightarrow	mid key	
\downarrow	low key	
+	pause (+ = one rhythmic BEAT)	
L	overlap	

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