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# Lessons from the study of prosody in English otherrepetitions

## **Abstract**

This chapter reports on a study of prosody in other-repetitions as documented in British and American English everyday conversation (Couper-Kuhlen, 2020) and examines the lessons that can be learned from it about (a) the role of prosody in disambiguating the social actions implemented by other-repetitions, and (b) the organization and functioning of prosody in conversational English. It builds on seminal work by Margret Selting with respect to the astonished initiation of repair (Selting 1996) and in general to conversational prosody and its transcription (Selting 1995, 2001, 2010; Selting et al. 1998, 2009).

Keywords: Other-repetition, action ascription, repair initiation, GAT transcription, surprise (Fremdwiederholung, Handlungszuwweisung, Reparaturinitiierung, Transkription mit GAT, Überraschung)

# 1. Action ascription and prosody

On occasion, the same or a similar type of turn-constructional unit can be interpreted as implementing differing social actions. This is especially true of next turns that repeat what another speaker has just said, to be called here *other-repetitions*. Sequential context is not always helpful in disambiguating what speakers are doing with other-repetitions. For instance, in the case of answers to *wh*-questions, one of the most common sequential environments for other-repetition, speakers who repeat the answer in next turn may be simply registering it, or they may be initiating repair on it, or they may be challenging it, among other things. Each of these third-position actions makes a different sequential trajectory relevant next. To illustrate, compare the following (the speaker of the original saying is A and the speaker of the second saying, B):<sup>1</sup>

(1) (Humanities students chatting in a campus lounge)

<sup>&</sup>lt;sup>1</sup> Data extracts (1)-(3) are presented in "minimal transcript" form (Selting et al. 2009, Couper-Kuhlen and Barth-Weingarten 2011) in order to demonstrate the ambiguity of next-turn repetition if no prosodic information is available.

```
01 B: when was the last time you went to see her (.)
y'grandma

02→ A: summer

03⇒ B: summer

04 oh so it wasn't that long ago
```

(2) (Three friends speaking of the best micro-brewery in Oulu)

```
01 B: what is it called

02→ A: panimo

03 (0.6)

04⇒ B: panimo

05 A: like panimo

06 it's um

07 it's right across from mcdonalds
```

(3) (A group of students chatting on campus, reference is to the recording technician)

```
01
       B: why are you waving at him
02→
       A: to know we're done
0.3
          (0.7)
0.4 \rightarrow
       B: [we're done
       C: [he said he said when we like had enough
0.5
06
          that we could just call him over and he'd turn it off
07
       B: but why is it it's not
NΑ
          it's not an effort
```

Each of the turn-constructional units marked here with a single arrow is answering a prior *wh*- question and the answer is repeated – either partially or fully – in next turn (double arrow). Yet B's repetition in (1) is treated as merely registering the answer in order to subsequently draw an inference from it (line 04), while B's repetition in (2) is treated as indexing a problem of reference, which A subsequently resolves (lines 05-07). On the other hand, B's repetition in (3) appears to challenge the appropriateness of what A is doing, namely calling the technician back to end the recording: he goes on to protest that the effort (of chatting) is not all that great (lines 07-08). In each case the repetition speaker could be said to be implementing a different social action, as evidenced either by what B does next, or by how the original speaker A treats the repetition in subsequent talk.

One hypothesis that has been advanced to account for situations like this is that the *prosody* of the repetition may be providing cues for what the repetition speaker is doing and consequently for what action is relevant next. Selting (1996), for instance, who looks at the other-initiation of repair in German (for which other-repetition is a common format), finds that 'normal' initiation of repair – for a problem of hearing or understanding – is systematically distinguished from 'astonished' initiation of repair – for a problem of expectation – through prosodic marking. In what follows I report on a

study undertaken to determine to what extent a similar 'prosodic' hypothesis is justified for English.

# 2. Prosody and other-repetition in English conversation

The study to be reported on here was conducted as part of a large-scale cross-linguistic investigation into the prosody of next-turn repetitions in English, Finnish, Finland-Swedish, French, and Italian directed by Giovanni Rossi (Rossi, 2020-a). At least 150 exemplars of partial and full lexical repetitions in conversations in each language were analyzed with respect to the social action being implemented. The action categories were the following: (i) registering the information provided in the original turn, (ii) seeking completion of the original turn, (iii) seeking clarification or specification of the original turn (repair-initiation for a problem of hearing or understanding), (iv) seeking confirmation of the original turn (understanding check), (v) treating the original turn as surprising, and (vi) challenging the acceptability of the original turn (challenge). These actions were identified qualitatively by the research team in a preliminary examination of other-repetition in the cross-linguistic data. A number of them have also been widely discussed in the literature on repetition and repair (Schegloff 1997, Benjamin & Walker 2013, Robinson 2013, Kendrick 2015, Persson 2015, Walker & Benjamin 2017). Aside from category (i), categories (ii)-(iv) involve what is traditionally thought of as repairinitiation by other, while categories (v) and (vi), strictly speaking, go beyond repair.

After a categorization of the repetition turns according to action type,<sup>2</sup> the six action categories were correlated with a wide range of prosodic factors in the repetition turn including – for each example in each language – location of main and secondary accents, type of final pitch accent together with any pitch movement at the end of the turn, as well as noticeable changes in pitch register, pitch span, loudness, speech rate, and timing relative to the original turn. Where video data were available, non-verbal factors including gaze direction, head movement, facial expression, and body position were also tracked.

The present report focuses on the role of *pitch contour* in disambiguating the above six other-repetition actions in British and American English.<sup>3</sup> The reason for the restriction to (final) pitch contour is as follows: It is a common assumption when referring to prosody that pitch is the primary factor, and numerous claims have been made in the literature about the relevance of final pitch in determining the function of

<sup>&</sup>lt;sup>2</sup> The categorization for action type was done holistically and took into consideration the surrounding context as well as how the other-repetition turn was treated in subsequent talk — without, however, relying on next-turn proof mechanically. The latter was not possible due to the fact that recipients of repetition turns can 'block' (or re-categorize) the action indexed by the repetition turn along with its implications for what should happen next. As with the analysis of other-initiations of repair in general, it is necessary to be sensitive to larger patterns and systematic relationships in dealing with such occurrences (Couper-Kuhlen and Selting 2018: 141-142).

<sup>&</sup>lt;sup>3</sup> Close to one hundred cases from each of these two standard varieties of English were analyzed in separate data sets, making it possible to compare national variation. This aspect will, however, not be dealt with here. See Couper-Kuhlen (2020) for more detail.

next-turn repetitions:<sup>4</sup> see, e.g., Quirk et al. 1972: 408–411 and Cruttenden 1986/1997:84-5 on "echo utterances". For this study an attempt was made to correlate other-repetition actions with a standard taxonomy of English pitch contours including the following: fall, rise, fall-rise, rise-fall, and level, along with a specification (where needed) of their starting points as high or low.<sup>5</sup> In the classic British approach to intonation adopted here (Crystal 1969, Cruttenden 1986/1997), these final pitch contours are thought of as extending from the last accented syllable of an utterance up to and including its final syllables.

# 3. Lessons learned from correlating pitch contour with other-repetition actions in English

The results of correlating other-repetition actions and pitch contour were surprising in a number of respects. Here I single out three lessons we learn from them about the workings of prosody, specifically pitch contour, in English other-repetitions.

#### 3.1 Disambiguating the action type of other-repetition

The first lesson to be learned is that at least for English, pitch contour does not play a systematic role in disambiguating the action type of other-repetition. This is because the same contour can be used for different other-repetition actions, and the same other-repetition action can be implemented with different contours.

Consider, for instance, the final pitch contour in the following case of other-repetition, which is treated as having initiated repair for a problem of hearing or understanding:<sup>7</sup>

(4) "Six hundred-a" (Swimmers 04.39) British English<sup>8</sup>

((Three friends, Jack, Bob, and Chip, are talking about whether they will ever be able to pay off their college debts.))

```
O1 Chip: thAt reminds me to pAy off my uhm
O2 (0.7)
O3 Chip: ((click)) (0.3) pay off my OVerdraft=
O4 = (which if i finally did) it'd be GOOD.
O5 (0.7)
```

<sup>&</sup>lt;sup>4</sup> An important exception in this respect is Tarplee (1996), who determines that it is prosodic contrastivity and temporal delay that are crucial in determining whether a caretaker's repetition of a small child's picture labelling is an invitation to repair or not.

<sup>&</sup>lt;sup>5</sup> See, e.g., Cruttenden (1986/1997) for more on these pitch contours.

<sup>&</sup>lt;sup>6</sup> This finding stands in stark contrast to what parallel studies of prosody (pitch contour) and other-repetition in French and Italian revealed: see Persson (2020) and Rossi 2020-b).

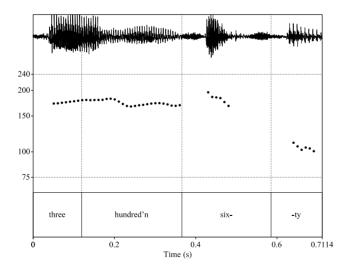
<sup>&</sup>lt;sup>7</sup> This data extract and all subsequent ones are presented in "basic" GAT2 transcript with the target lines in "fine" transcript (Selting et al. 2009, Couper-Kuhlen and Barth-Weingarten 2011). Where relevant, multi-modal aspects are transcribed according to Mondada (2001).

<sup>&</sup>lt;sup>8</sup> I am grateful to Giovanni Rossi for providing me with access to these data.

```
06
     Jack:
             ((laugh)) i'm never going to be ABle to.
07
             (0.5)
08
     Jack:
            erm i
                    [erm
                          you know we're getting like
09
     Chip:
                    [YEAH vou wIll, first=
10
            =first year of the ARmy you get <<p>fucking>
11
             (0.4)
12
            yeah, that's TRUE. (0.2)
     Jack:
13 \rightarrow
            Tyou know you get um sIx hundred and sIxty `QUID
            for like first two weeks of sUmmer.
14
             (0.8)
15⇒
             thrEe hundred'n \`SIXty.
     Bob:
16
     Jack:
            SIX hundred.
```

Jack, who has been in the army, initially complains that he will never be able to pay off his bank overdrafts (line 06), but then agrees with Chip that he will have an easier time considering that a sizeable sum of six hundred and sixty pounds is awarded for the first two weeks of military service (line 13). After a delay, Bob, who has no experience of the army, now does a repeat of what he has heard the sum of money to be: *three hundred'n sixty* (line 15). The main accent here is on *sixty* and it is delivered with a fall from high which moves to a low point in the speaker's pitch range, as can be seen in Figure 1. (The dotted lines in Figure 1 mark the upper and lower bounds of Bob's pitch range). The pitch span covered is approximately 12 semitones. In response, Jack repeats that part of his turn that Bob has misheard, with extra prominence on the number *six* (line 17).

**Figure 1.** Pitch trace corresponding to line 15 in Example (4). Pitch contour: *Fall from high* 



Now compare this pitch contour (Figure 1) with one that is used on another other-repetition from the same conversation, this time by Jack. This repetition turn is done with a similar fall from high but it is treated as a challenge rather than as repair-initiation for a problem of hearing or understanding:

### (5) "Megan" (Swimmers\_01.23) British English

((Bob is telling his friends Jack and Chip about the amateur play he will soon be starring in at school.))

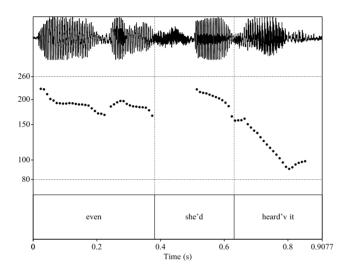
```
yeah YOU heard [of it didn't you?
01
     Bob:
02
                            [i've hEard of it yeah,
     Jack:
03
     Bob:
            [yeah-
04
     Jack:
           [well i've well i've sEen it in my SCHOOL;
05
            (0.7)
06
     Chip: <<p>oh rIg[ht.>
07
     Jack:
                      [s0:-
08
            (0.9)
09
            and you know uhm:: you know MEGan.
     Bob:
10.
            (0.4)
11
     Jack: YEAH;
12
            (0.5)
            <<h> even `SHE'D heard of it;>
13\rightarrow Bob:
14⇒ Jack: heh heh °hh Even ↑`SHE:'D heard'v it. (hh°)
15
            well nO i mean she's from \(^\SINGapo(hh^\circ))re;\)
16
           (0.7)
17
     Chip: pfff [A:ND? ((laughs))
18
     Jack:
                 [((laughs))
19
     Chip: pretty sure they've you know,
20
            (0.4)
21
            <<h> no no like>
     Bob:
22
     Chip: they have [CUL ]ture there.
23
     Bob:
                       [just]
24
            (0.3)
25
     Bob:
            i'm not being u::hm i'm not being FUNny.
```

Bob is trying to convince his friends that the play he is starring in is well known: as testimony to this, he notes that even their mutual friend, Megan, has heard of it (line 13). In line 14 Jack first produces a number of aspiration particles and then repeats this line, Even \(^1SHE:'D\) heard'v it, followed by an outbreath, whereupon Bob – rather than redoing what he has just said or simply confirming it – moves immediately to defend himself by arguing that Megan is after all from Singapore (line 15). This is a good indication that Bob has heard Jack's repetition as a challenge questioning the

acceptability of his prior claim. As Chip goes on to point out, even Singaporeans are likely to *have culture* and thus to have heard of the play.

Figure 2 shows the final pitch contour of Jack's full repetition:

Figure 2. Pitch trace of line 14 in Example (5). Final pitch contour: Fall from high



The main-accented syllable *she'd* begins slightly higher than the prior two syllables and drops to the bottom of Jack's pitch range, spanning approximately 16 semitones. The slight tick upwards in fundamental frequency visible in Figure 2 at the end of this repetition is not perceived audibly as a rise in pitch: it may be due to the friction created by Jack's articulation of 'v it.

In short then, Examples (4) and (5) are emblematic of the fact the same pitch contour, a fall from high, can be used on other-repetitions (partial or full)<sup>10</sup> in English to implement quite different social actions: initiating repair for a problem of hearing or understanding vs. challenging the acceptability of what the other speaker has said. The fact that these two actions have different implications for whether the original speaker goes on to correct/clarify/specify the repeated talk, or to defend themselves by justifying what they have just said means that the distinction is not a trivial one. And yet pitch contour is clearly not crucial in distinguishing them.<sup>11</sup>

Moreover, one and the same social action can be implemented by other-repetitions with different pitch contours. To see this, consider the case of other-repetition

<sup>&</sup>lt;sup>9</sup> See Koshik 2003 and Koshik 2017 for more on challenges as social actions.

<sup>&</sup>lt;sup>10</sup> No significant difference was found in this study between repetition of a part of the prior turn as opposed to repetition of the full prior turn or turn-constructional unit.

<sup>&</sup>lt;sup>11</sup> The more extensive pitch span of the contour in (5) may play a role in cueing the challenging nature of this repetition, but in terms of the taxonomy of English pitch contours this is the same pitch contour as that in (4).

challenges. In Ex. (5) the final pitch contour was a fall from high, but in the following case the challenge is implemented with a high rising-falling contour:

(6) "Body hurts" (Grass 00.05.30) British English

((A group of six classmates is sitting in a circle on the campus grass.))

```
01
     Cor:
            +!o:o:o:o:nheh!
            +slowly leans over to rest head on ground
     cor:
02
    Bet:
            are you al `RIGHT;
03→ Cor:
            *my `BODy hUrts.
            *reaches over to stroke Corinne's back
     bet:
            (0.9)
04⇒ Bet:
            *+^YOUR body hurt(h°)s(hh°).
            *gestures histrionically with right arm
     het:
            +begins to yawn, raising papers to cover mouth
     dia:
            <<all, p> heh joking it's fine> .hhh
05
     Bet:
            +(0.9)
            +finishes yawn and lowers papers
     dia:
06
     Dia:
            i might have a NAP. hhhh°
```

When Corinne begins to groan and lean over to rest her head on the ground, Beth solicitously asks if she is okay (lines 01-02). Corinne's reply is that her body hurts, whereupon Beth begins to stroke her back. But Beth then suddenly reverts from other-to self-attentiveness, now exclaiming *YOUR body hurts*, accompanied by a histrionic arm gesture (line 04): see Figure 3.

**Figure 3.** Beth's histrionic arm gesture in line 04 of Example (6)

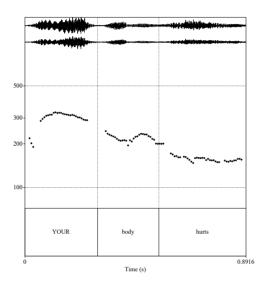


The implication here is 'what about mine?', a challenge to Corinne's exclusive right to complain. The force of Beth's utterance is further attested to by the fact that she

subsequently rescinds the challenge by stating that she is joking (line 05). At the same time, Diane begins a prolonged yawn, only partially camouflaged by her papers. Thus, Corinne's two classmates subtly join forces to challenge her right as the only one to be tired and in pain.

The prosody of Beth's repetition involves a stress shift, with the main accent now on *your*. This syllable begins low and rises to high before the pitch falls to low at the end of the unit, covering a span of 13.9 semitones altogether (Figure 4):

Figure 4. Pitch trace of line 04 in Example (6). Final pitch contour: High rise-fall



What is noticeable about the pitch contour in (6) is that it features an audible rise on the vocalic part of the accented syllable *your* before it begins a fall ultimately ending at a low point in the speaker's pitch range; thus, this contour would be categorized as a (high) rising-falling contour in the taxonomy of English pitch contours. <sup>12</sup> There is no similar rise in the vocalic portion of the accented syllable *she'd* in Ex. (5); for this reason the pitch contour in (5) would be classified as a simple falling contour, albeit from a steppedup high level. Yet despite the difference in pitch contour, both repetitions are treated as challenges to what the other has just said.

In sum, a first lesson to be learned from the findings of this study is that pitch contour alone is not a criterial feature in determining what action a next-turn repetition is implementing.<sup>13</sup> This is because the same pitch contour can be used to implement different other-repetition actions -- compare Exs. (4) and (5), where a fall from high implements an other-repetition initiating repair for a problem of hearing or

<sup>&</sup>lt;sup>12</sup> See also Benjamin and Walker (2013), who identify this contour type on a next-turn repetition as cueing that there is a problem of acceptability with the original turn.

<sup>&</sup>lt;sup>13</sup> This is not to deny that other prosodic dimensions, e.g., timing and pitch span, as well as (where available) visible cues can play a role in distinguishing what action an other-repetition is implementing (see also Couper-Kuhlen 2020).

understanding in (4) vs. for challenging in (5) -- and because the same action can be realized by other-repetitions with different contours – compare Exs. (5) and (6), where a challenge is implemented by other-repetition with a fall from high in (5) vs. with a high rise-fall in (6).

#### 3.2 High rise-fall other-repetitions and displays of surprise

A second lesson to be learned from the findings of this study concerns specifically high rise-fall contours, which are found not only on other-repetitions in English conveying a challenge but also on those making displays of surprise. As we will see, conveying a challenge and making a display of surprise are two distinct social actions.

In a seminal study on high rise-fall contours and other-repetition in English, Benjamin and Walker (2013) have argued that speakers who repeat what another has just said using a high rising-falling contour are claiming that it is somehow 'wrong' and stands in need of correction. Such a claim, as they point out, is morally charged: it suggests that the first speaker has transgressed by saying something that the repetition speaker knows (or claims to know) is inaccurate, inappropriate, or unacceptable. This is why, after such challenges, the original speaker will often move to defend themselves and/or to justify what they have said.

Yet in the present study, numerous cases of high rising-falling contours on other-repetitions were identified where there was a problem of expectation but no implication of morally tinged inappropriateness or unacceptability. These are invariably cases where the repeating speaker has less epistemic authority and/or access to the matter at hand than the original speaker but is ostensibly not expecting to hear what has been said. Accordingly, the repetition is treated not as a challenge but as a display of *surprise*, with the original speaker often being prompted to explain or account for the disparity in expectation in subsequent talk (see also Selting 1996). Here is a case in point:

#### (7) "She died" (HumanitiesStudents-b 13.08) British English

((Gerda, who is Canadian, has been explaining to Dirk how she brought some of her favorite records with her when she came to England to study and left them at her grandmother's. Now she is having trouble remembering which ones they were.))

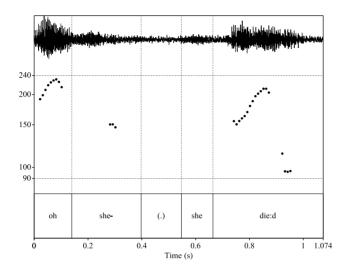
```
Gerda: it's been Ages since i looked at them. Uhm
02
     Dirk:
             whEn did you bring them=when you first came OVer.
0.3
     Gerda: yeah. ocTOber.
04
     Dirk:
             (bEen) there a WHILE.
05
            there's one of the RECord players though,
     Gerda:
06
             it's kinda SITting [(there)
07
     Dirk:
                                 [have you been ROUND there.
0.8
             when was the last time you went to SEE her (.)
             y'grandma.
09
             (1.5)
10
   Gerda:
             SUMmer.
11
   Dirk:
             SUMmer.
```

```
12
             (0.2)
             oh so it WASn't that long ago.
13
14→Gerda:
            but um (.) yeah she died this `SUMmer;=
15
            =and then i came i think the last time i[:
16⇒Dirk:
                                                     [oh she (.)
17⇒
            she ^DIE:D.
18 Gerda:
            yeah.
19
   Dirk:
            oh right i didn't=i thought you were going like (.)
             to VISit.
20 Gerda:
            no um-
21
   Dirk:
            oh RIGHT=i GET you.
22 Gerda:
            the one in CANada's alive.=[the one=
23 Dirk:
                                        [yeah.
24 Gerda:
             =in ENGland uhm died this summer.
```

The question that Dirk asks in line 08 when was the last time you went to SEE her (.) y'grandma is formulated in a way that suggests Gerda visited her grandmother in person. Gerda appears to buy into this understanding when she answers summer (line 10). Dirk now registers Gerda's answer (see (Ex. (1) above) and observes it wasn't that long ago (line 13), thereby revising his initial understanding that the records Gerda has been referring to have been at her grandmother's for a while (line 04). Dirk's contributions to this exchange appear to be predicated on the assumption that Gerda's grandmother is still alive. But Gerda now disabuses Dirk of this assumption (line 14), whereupon Dirk repeats the unexpected information, after a slight delay, as a source of surprise: oh she-(.) she ^DIED (lines 16-17). Later, after Gerda's confirmation (line 18), Dirk goes on to state what he mistakenly thought (line 19) and Gerda continues with an explanation accounting for the possible confusion (lines 22-24). The other-repetition in lines 16-17 is thus treated by both parties as displaying surprise due to a conflict between expectation and reality, with Gerda having greater authority over and access to the matter at hand.

The final pitch configuration used on the repetition in (7) is a high rising-falling contour on the main-accented syllable *died* (see Figure 5).

Figure 5. Pitch trace of line 16 in Example (7). Pitch contour: High rise-fall



The rising part of the high rise-fall contour on *die:d* has a pitch span that covers 10 semitones, the falling part, a span of 14 semitones. Note the presence of *oh* as a preface to the repeat speaker's turn, indicating that the information just imparted has led to a change-of-state, in this case of knowledge or understanding (Heritage 1984). The *oh* is also delivered with a high rise-fall peak (in Reber's terms it is an 'extra high and pointed' *oh* (2012:92)) and in this sequential context is a further index of the surprise displayed in Dirk's turn (see also Local 1996).

To summarize: A high rise-fall contour is found not only on repetitions *challenging* what the other has said from a claimed standpoint of greater epistemic authority, but also, from a position of lesser epistemic authority, on repetitions *displaying surprise* at what the other has said because it is unexpected and goes against one's prior assumptions. This substantiates Selting's (1996) finding for German that some other-initiations of repair have an overtone of 'astonishment' pointing to a contradiction between the prior turn and the speaker's own expectations. Such repair initiations, she says, are prosodically marked, that is, they have high global pitch and greater loudness than surrounding units and/or a marked accent constituted by a larger pitch range (extra high pitch peak) or markedly greater loudness (p. 239). <sup>14</sup> Thus, in German a display of astonishment or surprise accompanying the other-initiation of repair is not so much a question of contour type as of wider pitch span and/or higher pitch (in addition to greater loudness). The present study corroborates this finding for English: other-repetitions that

 $<sup>^{14}</sup>$  Although Selting's examples include a variety of repair-initiation formats, several involve partial or full repetition of the prior turn, which she refers to as 'echoing' (pp. 244-246). In all of her examples, there is a strong epistemic gradient (Heritage 2012) between the speakers, with the repair-initiating speaker being less knowledgeable [K-] and their interlocutor being more knowledgeable [K+] with respect to the matter at hand.

are treated as making displays of surprise have contour types with an extra high pitch peak or a wide pitch span and/or have overall higher pitch register.

In sum, the second lesson to be learned from this study of prosody and other-repetition is that high rising-falling pitch contours are used not only on other-repetitions challenging the acceptability of what has been said but also on those displaying surprise at what has been said. That these are two different social actions is attested to by the fact that they make different responses relevant next: self-defense and justification in the face of a morally tinged challenge (Example 5) vs. confirmation, explanation and accounting for a discrepancy in expectation (Example 7). They are also distinct epistemically: a repetition-speaker who challenges the other is laying a claim to know as much as, if not more than the other, while a repetition-speaker who displays surprise is accepting of the (unexpected) state of affairs on the greater authority of the other. One piece of evidence for the different epistemic gradient holding in these two actions is that in English the particle *oh* can and often does accompany other-repetitions displaying surprise: see Ex. (7) *oh she- she died*, where it marks a change-of-state in the speaker's knowledge (Heritage 1984), but would be inappropriate with other-repetition challenges unless the speaker were being sarcastic.

#### 3.3 Pitch contour vs. final pitch movement

A third lesson to be learned from the present study concerns the pitch (rising, falling, or level) at the very end of an other-repetition turn as distinct from the pitch contour on or beginning on its main accented syllable. This distinction is especially relevant when there are one or more unaccented syllables following the main accent.

As noted above, the traditional British approach to intonation assumes that any unaccented syllables that follow the main accent continue the pitch contour initiated there. When the pitch of the final syllable or syllables diverges from the pitch movement so far, this means that a complex pitch contour, e.g., a fall-rise (or with two accented syllables, fall+rise) or a rise-fall (or with two accented syllables, rise+fall), must be assumed, whose realization is said to be 'spread' over the remainder of the intonation unit.

Yet the findings from the present study suggest that the final pitch of a turn designed with other-repetition operates separately from pitch contours located on or beginning on the main accent. Evidence for this comes from the fact that the same pitch contour used in the implementation of the same other-repetition action is found with both final rising and final falling pitch. Take the case of other-repetition implementing a challenge: Recall that in Ex. (5) we saw a fall-from-high contour used on the full repetition *even SHE'D heard of it.* This contour ended audibly at a low point in the speaker's pitch range. Now compare the following case, where again a fall-from-high contour is used on a (partial) repetition implementing a challenge:

## (8) "Cricket" (Duck\_Ex\_8\_00.29.08) British English

((Anthony is explaining to his friend Brian that the thesis topic he is currently working on concerns a West Indian filmmaker from London who has produced two films. He now begins to describe one of the films.))

```
01
   Ant: er this thIs one's called playing aWAY;=
02
          =which is about (0.2) erm (0.3) °hhh
0.3
          er a cricket team from BRIXton, (0.5)
\cap A
          who gO to: (.) plAy:: (0.7) a MATCH; (.)
05
          uh agAinst (0.7) ((click)) °hh
06
          a tEam from sOmewhere like (.) COXwell.
07
          or somewhere kind of [All BLACK [v(h)ersus=
08
   Bri:
                                [yeah
09
    Ant: =All blAck west INdian versus all whIte (1.9)
10
          y-you know e-English st st stEreotype TEAM. °hh
11
          erm (0.5) and Obviously there's TENsions and stuff.
12
   Bri: <<all>if anything if it's anything like (xx) what (xx)
          used to be like>
13
          they'd be like (0.5) <<all>(they'd be like)> just like
14
          why d'you need to (rip up) the wicket (xx)
15
   Ant.:
          er (0.6) YEAH but i=
16→
          =thAt's one of the things i'm thInking about though is
          the CRICKet,=
17 \rightarrow
          =because it's quIte um (1.0) quite an Interesting, (.)
          pOint of like res reSIStance? that um
18 \rightarrow
          ↑`CRICKet,
19⇒Bri:
20
          (0.3)
21
   Ant:
         yEah YEAH[yeah fo (.)
22
    Bri:
                   [mm WELL um (0.3)
23
   Ant: no no it I[S for (0.6)
24
   Bri:
                    [(<<pp> don't know>)
25
   Ant: for the west INdians; in BRItain. (0.2)
26
         °hh (0.3) it's a rEal kind of
   Ant.:
27
          i in nineteen FIFty they beat the the ENGlish,
          At LORDS; °hhh
28
29
          and i it's a rEal kind of celeBRAtion. (0.7)
30
          um ((turn continues))
```

In lines 12-14 Brian attempts a display of understanding concerning the film whose plot Anthony has been recounting (lines 1-11): he invokes the stereotype that West Indian sports teams typically demolish the playing field after a match. However, Anthony's *yeah but* response (line 15) suggests that he has a different point in mind, namely that the game of cricket for West Indians can become a site of (racial) resistance (lines 16-18). Brian, whose earlier turn laid a claim to some knowledge about the behavior of West Indian sports teams, now repeats the word *cricket* with a fall-from-high contour, ostensibly challenging Anthony's claim that cricket is a site of resistance. That Anthony hears Brian's repeat turn as a challenge is evident from what he does next: he first confirms that this is the case (*yeah yeah yeah*, line 21) and then, when Brian hints that he doubts as much (*well um* <<*pp*> *don't know*>, lines 22 and 24), forcefully rejects

any doubt about it (*no no it IS for (0.6) for the west INdians in BRItain*, lines 23 and 25), then delivering an anecdote to prove his point (lines 26-29).

In Ex. (8) the fall from high on the other-repetition turn *cricket* (line 19) does not end on a low note: instead the pitch of the unstressed syllable *-ket* following the main accent on *cric*- is as high as, if not higher than, the lowest point reached in the prior fall.<sup>15</sup> That is, the end of this other-repetition turn sounds different from the one in Ex. (5) *even SHE'D heard of it*, where all the unstressed syllables following the main accent are audibly lower than the lowest point reached in the fall on *she'd*. Yet if we attempted to describe the intonation in Ex. (8) as a fall-rise contour, this would effectively put it in a different category of nuclear accent, a type which is otherwise not documented for other-repetition in English. It thus makes more sense to treat the pitch contours in (5) and (8) both as falls from high but to acknowledge that the pitch at the end of the unit can fall (i.e., be lower) or rise (be higher) independent of the pitch contour itself.<sup>16</sup> Doing so allows us to establish that a challenging action implemented by other-repetition in the data is done with either a fall-from-high or a high rise-fall contour, regardless of whether the pitch at the end of the turn is higher or lower than that of the main accent.

This state of affairs is actually indicative of a wider point, namely that what happens on the last unaccented syllable of an other-repetition turn is a separate matter from what kind of pitch contour is used to realize the main accent.<sup>17</sup> In other words, the pitch of a final unaccented syllable does not contribute to cueing the particular type of action that an other-repetition turn is implementing. What it does do is a matter for further research. But it could be argued, along with Stivers and Rossano (2010), that a final rise on a last unaccented syllable in an other-repetition indexes a turn-taking option, that it 'invites' an interlocutor to come in next, as opposed to a final fall which simply 'allows' the other to come in. To substantiate this hypothesis would require more research. But the findings of the present study lead in any event to a third lesson: the pitch of a final unaccented syllable conveys a dimension that is independent of that associated with the main accent of an other-repetition. This conclusion corroborates the GAT 2 transcription convention of notating the final pitch of intonation phrases separately from final pitch accents (Selting et al. 2009, Couper-Kuhlen and Barth-Weingarten 2011). Moreover, it confirms the decision to make the notation of final pitch an element of the "basic" transcript, hinting perhaps at its contribution to turn-taking, and to reserve the notation of pitch contour for the "fine" transcript, where features contributing to action formation and stance display are tracked.

## 4. Conclusion

<sup>&</sup>lt;sup>15</sup> A Praat picture of the pitch in this utterance is not possible due to its reduced intensity.

<sup>&</sup>lt;sup>16</sup> In fact, Benjamin and Walker (2013) make this same observation for the high rise-fall contours they identify on other-repetitions that manage acceptability.

<sup>&</sup>lt;sup>17</sup> This thus provides independent confirmation for the notion of a 'boundary tone' as propagated in autosegmental phonological approaches to intonation (Pierrehumbert and Hirschberg 1990, Ladd 2008).

The contributions of Margret Selting have been in many ways seminal for the lessons described here about prosody, its organization and its functioning. Her early work on 'astonished' repair initiation (1996), one of whose common formats is other-repetition, already contained the seed of Lesson (1). In it she identified a type of social action with distinctive features and sequential implications for which prosody offers a constitutive cue. However, this cue is not a particular type of pitch contour (or pitch accent) but rather a wider pitch span and/or higher pitch and greater loudness. Selting's (1996) study also laid the groundwork for identifying 'astonishment' or 'surprise' as a type of interactional display, one that can be superimposed on different formats for initiating repair. Without singling out other-repetition (or 'echoing') specifically, her examples of this format in 'astonished' repair initiation point to Lesson (2). They invariably involve an epistemic gradient between the repetition speaker, whose epistemic authority is less, and the original speaker, whose epistemic authority is greater, thus paving the way for a distinction between 'surprise' and 'challenge' as two distinct social actions. Finally, Selting's deep reflection on and experience with prosody and its transcription (Selting 1995, 2001, 2010) as well as her central role in developing the GAT system for transcribing conversational exchanges (Selting et al. 1998, 2009) have been seminal for Lesson (3). What may initially have been expedience in breaking down the stages of the transcription process for greater manageability has found ultimate validation as a principle of prosodic organization in the micro-analysis of other-repetition sequences in English talk-in-interaction.

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