The Prosody of Emphatic Reflexives in English

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0. Introduction

English (as with many other languages) uses the same word for a reflexive argument and an emphatic reflexive (**ER**).

(1) a.   John **himself** was doing homework last night.
    b.   John was doing homework **himself** last night.
    c.   John was doing homework last night **himself**.
    d.   John was **himself** doing homework last night.

SYNTACTICALLY, ERs **appear in many positions**.

- ERs that immediately follow their antecedent (1a) are **Adjacent Emphatics**, (**AEs**)
- ERs that appear at the right edge of the VP (1b) are **Post-VP Emphatics**, (**PVEs**)
- there are also ERs that occur **more freely** (1c-d).

Following an object-promoting verb (**OPV**) –e.g. passive, unaccusative, etc.– **PVEs** are seemingly ungrammatical, cf. (2) & (3). (Ahn, *In Prep.*)

(2) a.   The doctor (✓**himself**) made the discovery (✓**himself**).
    b.   She (✓**herself**) was drinking (✓**herself**) last night.
(3) a.   Jane (✓**herself**) has shrunk (*__itself__).
    b.   John (✓**himself**) arrived (*__himself__).
    c.   The beef (✓**itself**) was burned (*__itself__).

SEMANTICALLY, ERs can be **interpreted in two ways**. (Tavano 2006) An **Identificational Emphatic** identifies its antecedent, **contrasting** it to other salient entities. An **Agentive Emphatic** indicates that the antecedent acted as the sole agent of the action, **contrasting** it to other possible theta roles (co-agent, indirect agent, theme, etc.).

PROSODICALLY, **little has been said** in the literature except that ERs, unlike reflexive arguments, are infelicitous without a pitch accent. (Creswell 2002, Hole 2002) To better understand the prosody of ERs, **we will look at the following questions with a production study**.

1. So, what are the ***exact prosodic properties of the ER***?
2. Do they vary with respect to syntax or semantics, or ***are they constant***?
3. In what ways can the ER's prosody ***shed light on its syntactic and semantic properties***?

With respect to question 1, supposing that we are right about the semantics and ERs always constrastively focus, supposing Pierrehumbert & Hirschberg (1990), **we expect ERs to always be /L+H*/ marked**.

2. Methods

2.1 Stimuli

English native speakers were recorded reading short scripts with an interlocutor.

(4) *Example Script*
A: Did you hear about Perry?
B: Yeah – about his bike, right?
A: Well not only did his bike get hit by a car last week...
B: Oh no, what happened now?
A: He himself was hit just last night.
B: Is he okay?
A: Yeah, the car wasn't going very fast.

Particpants silently read the entire script first, **to fully understand the context**, and then read the script aloud twice.

Stimuli were 24 fillers and 24 test scripts; the test conditions were:

	AE	PVE	Sentence Final
Transitive	x4	x4	x4
Object Promoting	x4	x4	x4

2.2 Transcription

Each test sentence was segmented and labelled in Praat, following **MAE_ToBI conventions**. (Beckman & Hirschberg 1994) When a sentence was **ungrammatical with an ER interpretation**, it was discarded. This was the case for 10.9% of the data.

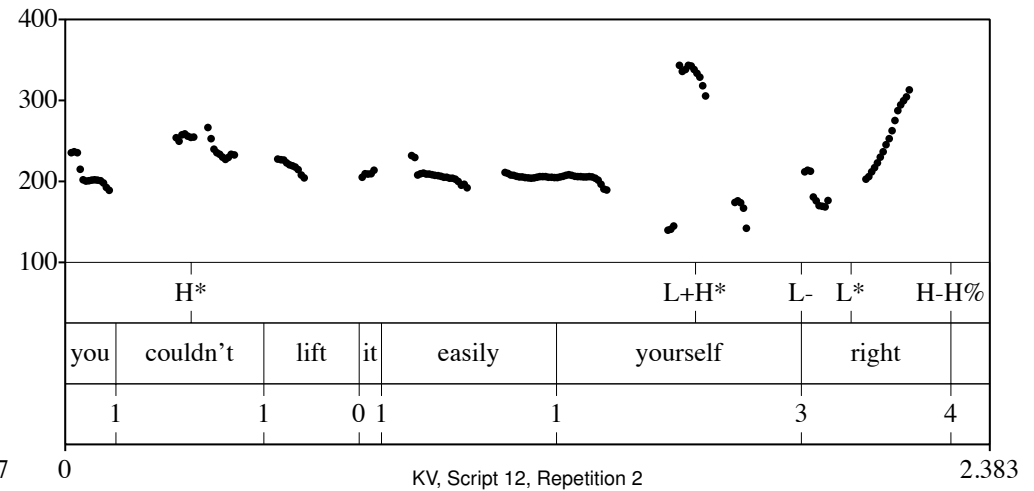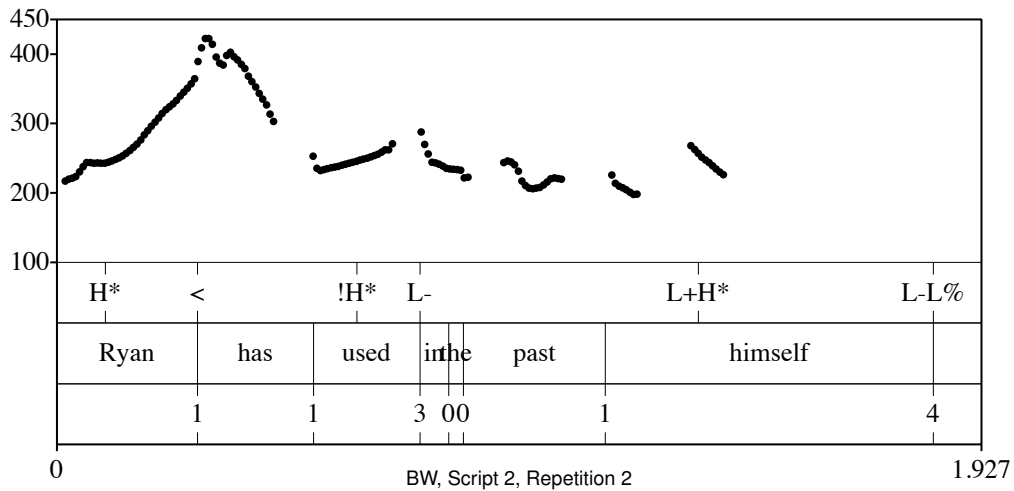## 3. Results

3.1 Summary of the Results

ER's Pitch Accent

	AE	PVE	Sentence Final	Overall
L+H*	58.7%	100%	100%	**84.4%**
(H+)ᴴ*	41.3%	0%	0%	**15.6%**

ER is the NPA

	AE	PVE	Sentence Final	Overall
Yes	60.9%	100%	100%	**85.2%**
No	39.1%	0%	0%	**14.8%**

3.2 PVEs and Sentence Final ERs

As you can see, PVEs and the Sentence Final ERs always occur as a [L+H*] marked NPA.

KV, Script 3, Repetition 2
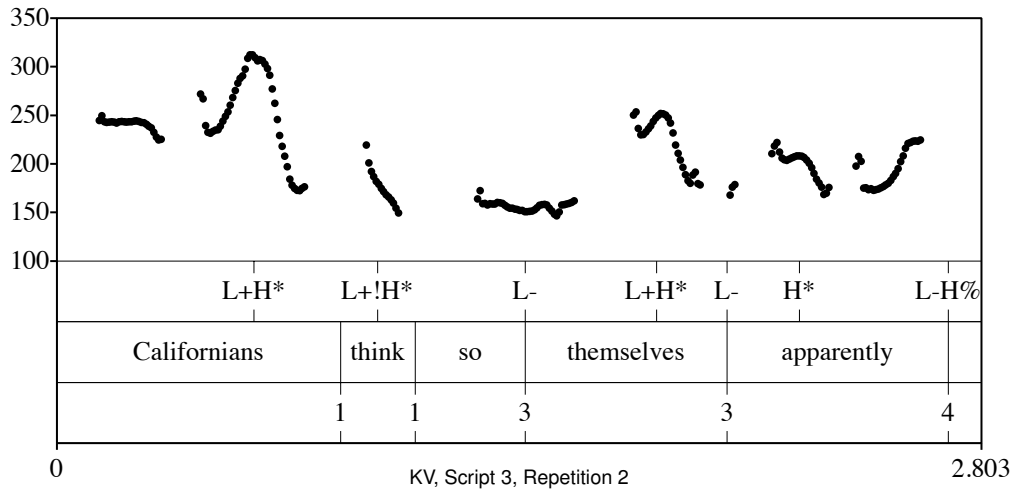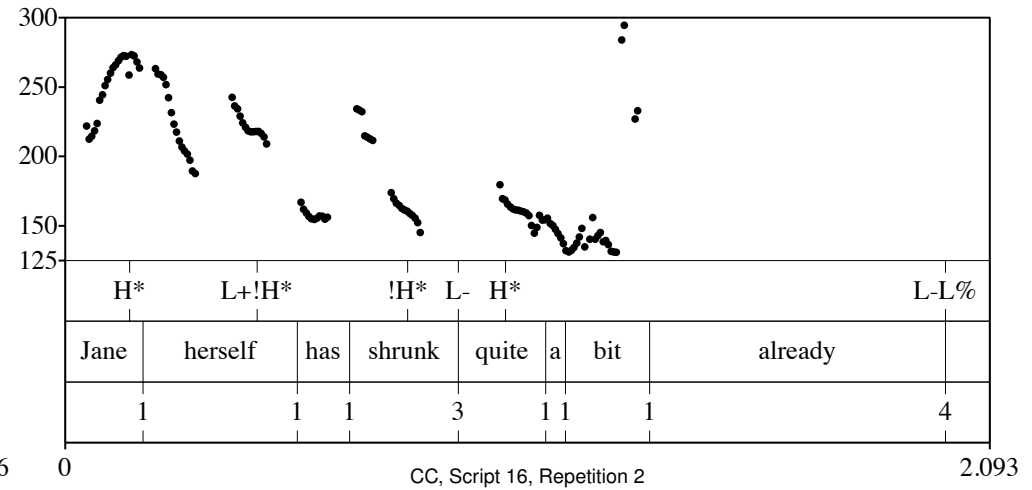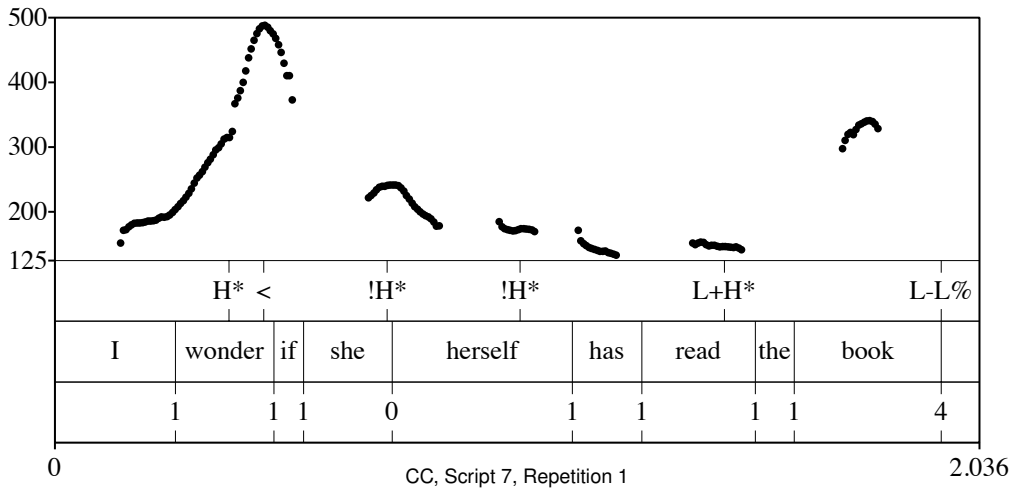
	L+H*	L+!H*		L-	L+H*	L-	H*	L-H%
Californians		think	so	themselves			apparently	
	1	1	3		3		4	

CC, Script 6, Repetition 1

		H*			!H*	H-	L+H*		L-L%
they	were	drinking	at	a	bar		themselves		
0	1		1	0	0	3-		4	

BW, Script 2, Repetition 2

H*	<	!H*	L-		L+H*	L-L%
Ryan	has	used	in the	past	himself	
1	1	3	0 0	1	4	

KV, Script 12, Repetition 2

	H*				L+H*	L-	L*	H-H%
you	couldn't	lift	it	easily	yourself		right	
1	1	0	1	1		3	4	
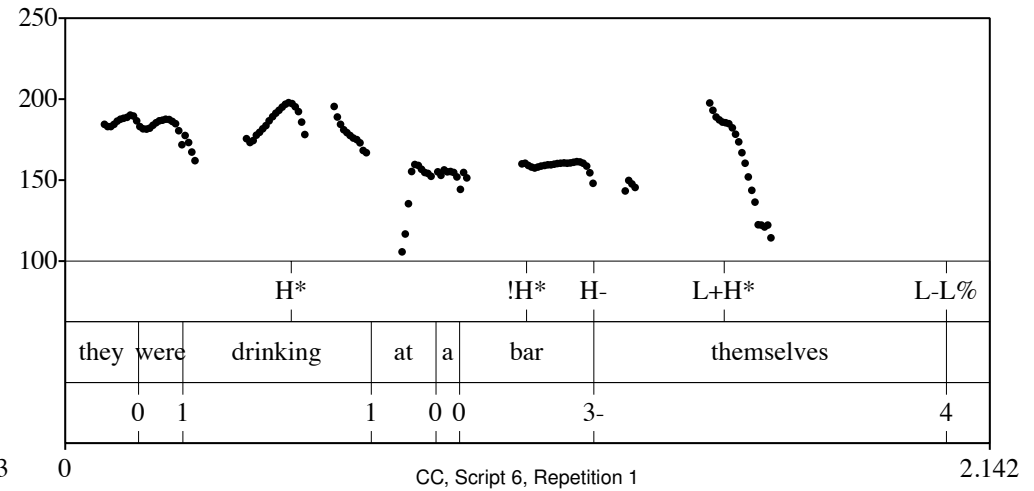
3.3 AEs

AEs can be marked [L+H*] – but can also be marked with [ˈH*] or [H+ˈH*]. **These should be considered phonetic variants of one another**, as they all can be seen in the same context (Script 7). Furthermore, as in KV 7-1 and CC 16-2, the [L+] target on the ER can be often rather shallow.
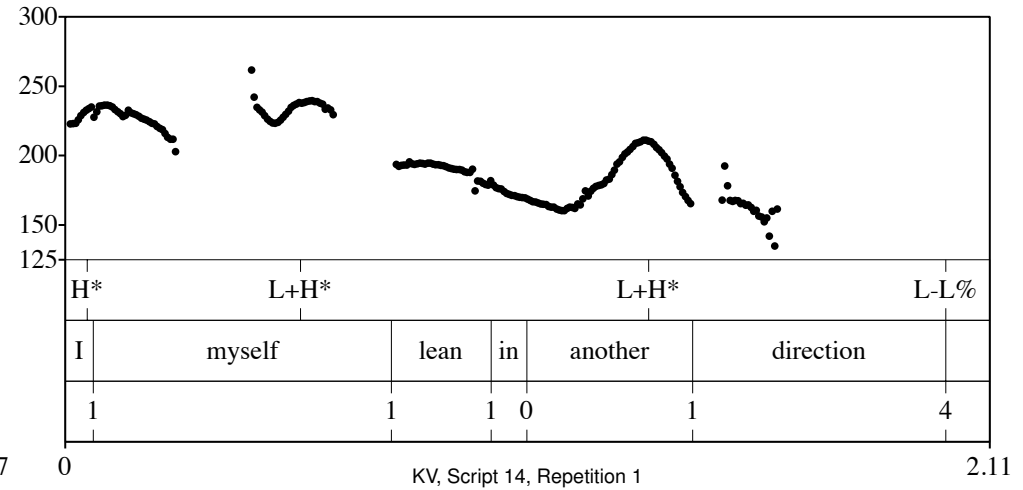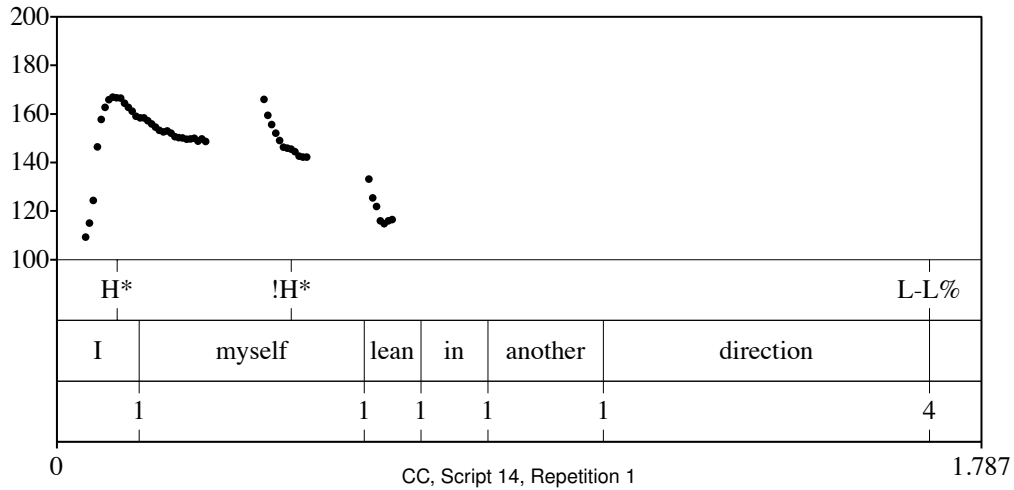
Figure (BW, Script 7, Repetition 2):

	L+H*	!H*		H+!H* H-		L+H*		L-L%
I	wonder	if	she	herself	has	read the	book	
1		1 1	0	3	1	1 1		4

(y-axis: 125 to 750; x-axis: 0 to 1.729)

Figure (KV, Script 7, Repetition 1):

	H* <L-		H*		L+!H*		L+H*		L-L%
I	wonder	if	she	herself		has	read the	book	
1	3-	1	0			1	1	1 1	4

(y-axis: 125 to 325; x-axis: 0 to 1.87)

Figure (CC, Script 7, Repetition 1):

	H* <	!H*	!H*		L+H*		L-L%
I	wonder	if she	herself	has	read	the book	
	1	1 1	0	1	1	1 1	4

(y-axis: 125 to 500; x-axis: 0 to 2.036)

Figure (CC, Script 16, Repetition 2):

	H*	L+!H*		!H* L- H*		L-L%
Jane	herself	has	shrunk	quite a bit	already	
1		1 1	3	1 1	1	4

(y-axis: 125 to 300; x-axis: 0 to 2.093)

Also note that **AEs may be the NPA** (CC 14-1) **or not** (KV 14-1).

	H*		!H*					L-L%
I	myself		lean	in	another		direction	
	1		1	1	1		1	4

CC, Script 14, Repetition 1

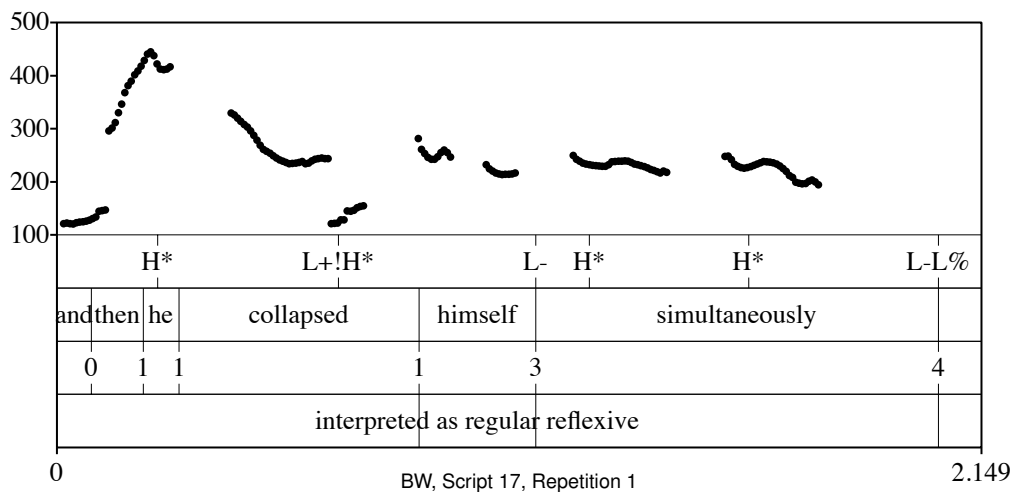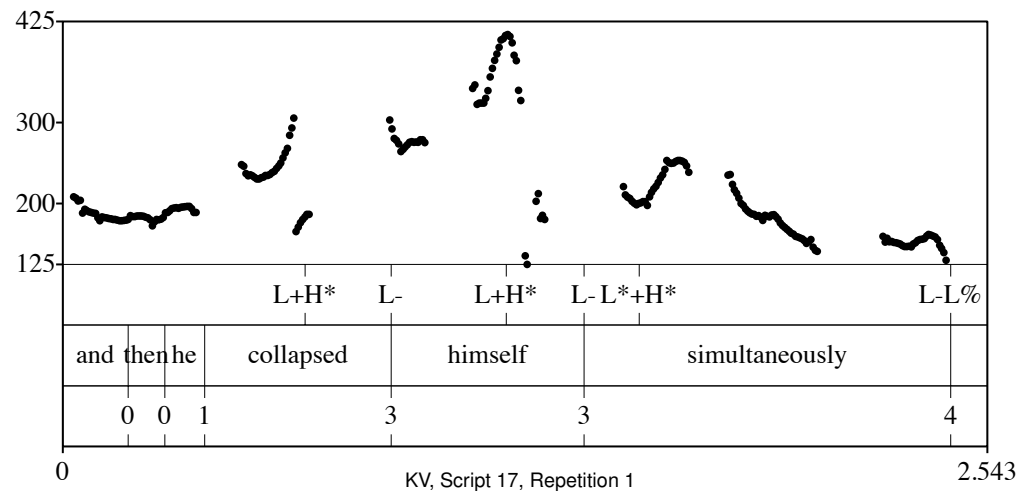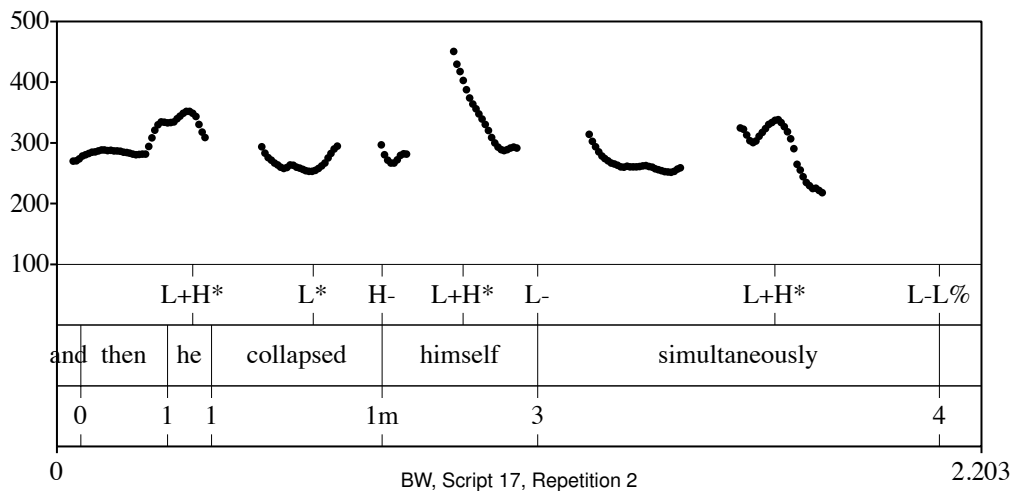|	H*		L+H*					L+H*		L-L%
I	myself		lean	in	another			direction		
	1		1	1	0		1		4	

KV, Script 14, Repetition 1

3.4 Necessary iP breaks

Subjects were asked to produce **sentences like (3)**, which are expected to be ungrammatical, in some scripts. **Participants often had difficulty** (i) producing the sentence fluently, (ii) reading the script as it was written or (iii) interpreting the sentence correctly. Take, for example, **the relevant section of script 17**.

> A: Well, I pushed over my voodoo doll of John...
> B: Uh huh...
> A: And then he collapsed himself simultaneously.

As we can see below, BW seemed to interpret the verb "collapse" as a causative in the first repetition. CC inserted a preposition to make the sentence more straightforwardly grammatical. In both of these, the speaker is trying to interpret "himself" non-emphatically, so it is not necessary for there to be a pitch accent.

Figure (top left): BW, Script 17, Repetition 1

- Pitch axis: 100–500
- Tones: H*   L+!H*   L-   H*   H*   L-L%
- Words: and then he | collapsed | himself | simultaneously
- Break indices: 0 1 1   1   3   4
- interpreted as regular reflexive
- Time axis: 0 ... 2.149

Figure (top right): CC, Script 17, Repetition 1

- Pitch axis: 125–225
- Tones: H*   L+H*   L-   L+H*   L-L%
- Words: and then he | collapsed | on | himself | simultaneously
- Break indices: 0 0 1   1 1   3   4
- mistake
- Time axis: 0 ... 2.164

However, in some productions of the sentence (BW 17-2, KV 17-1), the sentence sounds grammatical and the ER is easily interpretable as emphatic – **this is the case of inserting iP breaks on either side of the PVE**.

Figure (bottom left): BW, Script 17, Repetition 2

- Pitch axis: 100–500
- Tones: L+H*   L*   H-   L+H*   L-   L+H*   L-L%
- Words: and then | he | collapsed | himself | simultaneously
- Break indices: 0   1 1   1m   3   4
- Time axis: 0 ... 2.203

Figure (bottom right): KV, Script 17, Repetition 1

- Pitch axis: 125–425
- Tones: L+H*   L-   L+H*   L- L*+H*   L-L%
- Words: and then he | collapsed | himself | simultaneously
- Break indices: 0 0 1   3   3   4
- Time axis: 0 ... 2.543

3.5 Correlate: QUID

Sometimes there are **unexpected low targets** surfacing. This drop in pitch cannot be predicted in MAE‗ToBI without the use of a boundary tone, but there is no iP juncture. For that reason, I use the term **QUID** (**Quick Unexpected Intonational Drop**) to refer to this phenomenon.
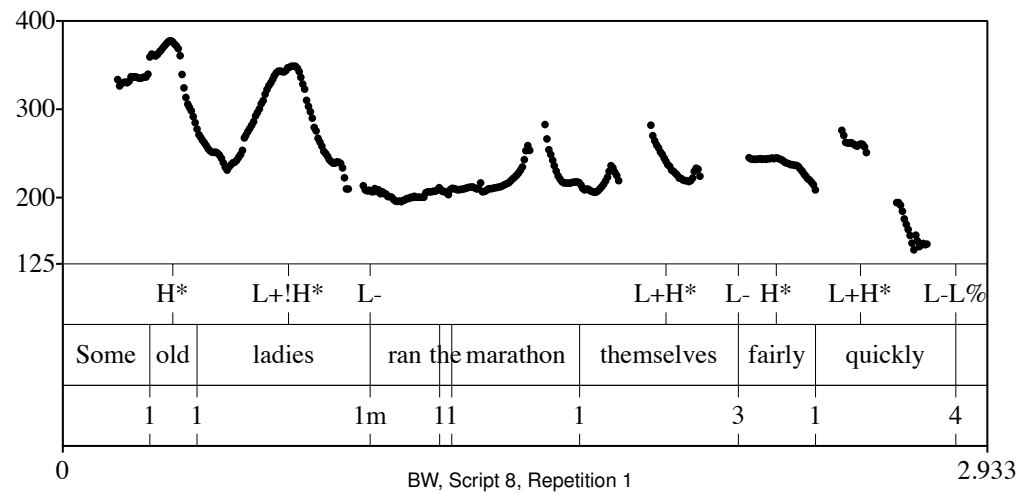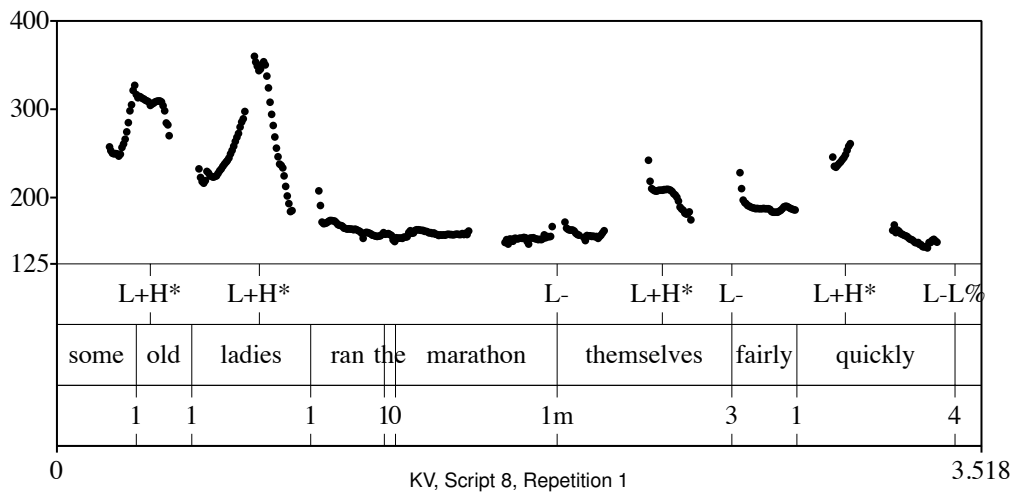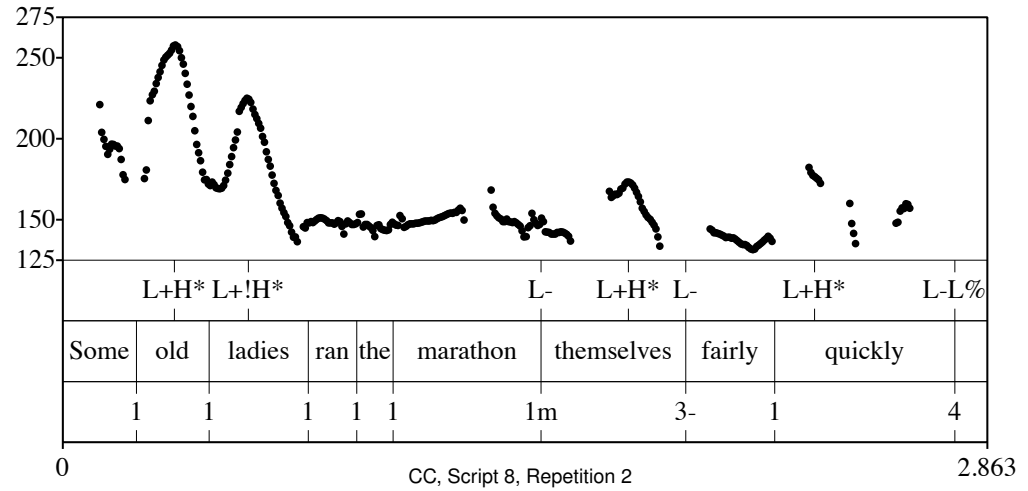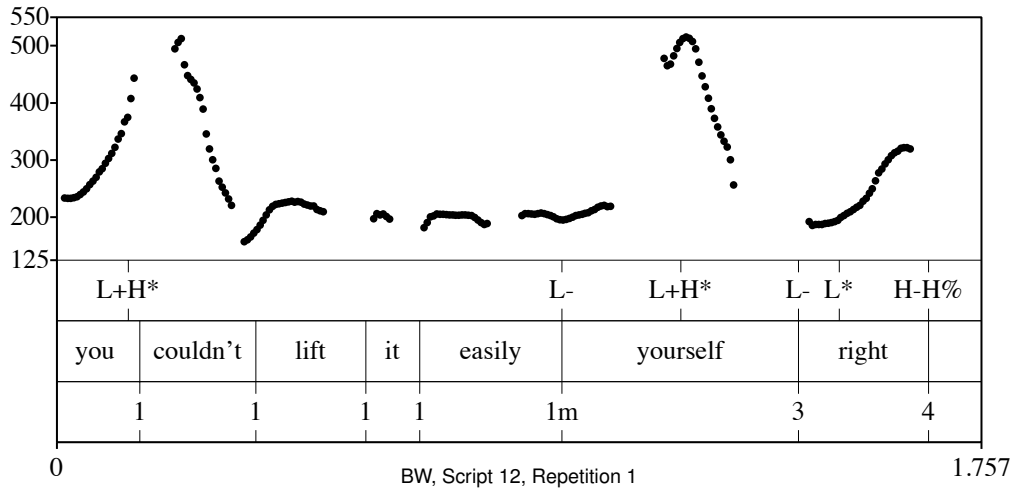
For conventions' sake, I have labelled these **QUID** examples with a '1m' bearing a L- tone, though I don't necessarily believe there was ever any iP break intended, **given consistency across speakers**, as in Script 8.

4.1 Pitch Accent

Our results confirm our hypothesis that **ERs must always be accompanied by a pitch accent**. Furthermore, this pitch accent is largely consistent across semantic and syntactic classifications.

4.2 /L+H*/ and [(H+)$^{!}$H*]

We surprisingly found three accents on **AEs** – [L+H*], [$^{!}$H*], and [H+$^{!}$H*]. I propose that all of these are variants of a single underlying form. In an AE construction, there may **not be enough time to fully realize both** a /H/ target on the antecedent and a /L+H*/ target on the ER.

Since the [L+] is not attached to a stressed syllable, it is the first to be weakened – as we see in the **shallow L targets** of CC 16-2 and KV 7-1.

We can also imagine that instead of realizing [L+] at all, **you can downstep the [H*]**.

We now have a [H] [$^{!}$H*] sequence, which I believe has further **grammaticized to be [H+$^{!}$H*]**, as we now find the first [H] realized on the ER's first syllable.

I have schematized this below.

> /H/ /L+H*/ → [H] [(L+)H*]
> /H/ /L+H*/ → [H] [$^{!}$H*] → [H+$^{!}$H*]

In this way, we now underlyingly have /**L+H***/ **marking all ERs**, even if /L+H*/ surfaces differently.

4.3 Phrasing

Besides the results we have found with regard to pitch accent, we also have positive results on the ER and phrasing.

- (Non-AE) **ERs must be the nuclear pitch accent of the phrase**.
- If the ER is in a position that is syntactically unexpected (such as the PVE position with an **OPV**) **one must insert iP boundaries on either side of the the ER in order to "rescue" the grammaticality**.

This proposal suggests that, **wherever you surround an ER with iP boundaries, that ER has a different status** in the syntactic derivation than an ER without iP boundaries on either side. If this were not the case, **PVEs** after an **OPV** would *always* be ungrammatical, counter to fact.

4.4 Semantics and Syntax

These results offer insight into the ER's syntax and semantics.

- Across syntactic positions, ERs consistently have a underlying /L+H*/ pitch accent – this suggests that, whatever it is, **the semantic formulation of ERs must induce contrastive focus**.
- As mentioned in section 4.3, **the prosody has informed us that there are two kinds of syntactic representations for ERs** – one whereby **PVEs** are ungrammatical after an **OPV**, and one whereby they are good.

Furthermore, we make a predication based on them. Given a syntactic structure for ERs, there will be certain positions that are expected (**AE**, **PVE**), and those that are harder to predict (**PVE** following an **OPV**, **freely placed ERs**). For this reason, **we might predict that the more freely placed ERs will <u>also</u> need phonological breaks**.

Both of these facts **further the notion that there is a strong link between prosody and syntax/semantics**.

4.5 QUID

I have brute-forced **QUIDs** into MAE_ToBI by way of a 1m mismatch boundary. But being that it is more-or-less consistent (i.e. not a mismatch), **I propose a new notation**: superscript L on the tone after which the pitch falls immediately, e.g. **L+H*$^{\text{L}}$**.

The distribution of QUIDs is wider than just the examples in this paper. For another example, we briefly introduce data from Jun (2001) (see also Ladd 1996 and Shilman 2006). Jun's work explores examples like (5).

(5) a. John   didn't hit Mary because she was yelling.
     L+H*$^{\text{L}}$ L+H*   L-H%
     ⇒'John hit Mary, but not because she was yelling.'

    b. John didn't hit Mary   because she was yelling.
     H* !H*   !H* (L-) H*   !H*   L-L%
     ⇒'John didn't hit Mary and that is because she was yelling.'

5. Conclusion

This study has demonstrated that **the interpretation and grammaticality of reflexive words as emphatic relies heavily on intonation and phrasing**. Moreover, the **prosody can also inform us about the semantic and syntactic representations** of ERs.

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